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CURRICULUM VITAE
THEODORE CRAIG CHAN, M.D., FACEP, FAAEM

OFFICE ADDRESS:

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EDUCATION:

Academic: B.A. in History with Highest Distinction in General Scholarship,
1983-87 University of California, Berkeley
Berkeley, California

Medical School: M.D., University of California, San Francisco School of Medicine
1988-92 San Francisco, California

Internship: Department of Internal Medicine
1992-93 University of California, San Francisco Medical Center
San Francisco, California

Residency: Department of Emergency Medicine
1993-96 University of California, San Diego Medical Center
San Diego, California (Chief Resident: 1995-96)

LICENSURE: California Medical License Number G-78148, 1994

BOARD CERTIFICATIONS:

National Board of Medical Examiners, 1993

Diplomate, American Board of Emergency Medicine, 1997; Recertification 2007

PROFESSIONAL SOCIETY MEMBERSHIPS:

American Medical Association, 1990

California Alumni Association, 1990

American College of Emergency Physicians, 1992

Society for Academic Emergency Medicine, 1996

Fellow, American College of Emergency Physicians, 1999

Fellow, American Academy of Emergency Medicine, 2005

APPOINTMENTS:

- 7/13 – present Chair, Department of Emergency Medicine, University of California, San Diego (UCSD) Medical Center
- 7/12 – present Professor of Emergency Medicine (ladder-rank), UCSD School of Medicine
- 7/94 - Present Base Hospital Physician, UCSD Medical Center

PREVIOUS EXPERIENCE:

- 7/06 – 6/13 Vice Chair and Associate Director, Department of Emergency Medicine, University of California, San Diego (UCSD) Medical Center
- 7/05 – 6/12 Professor of Clinical Medicine, UCSD School of Medicine
- 1/05 – 6/13 Medical Director and Clinical Service Chief, Emergency Department, UCSD-Hillcrest Medical Center
- 1/05 – 6/13 Medical Director and Clinical Service Chief, Emergency Department, UCSD-Thornton Hospital
- 4/99 – 6/13 Director, Custody Services, UCSD Medical Center
- 1998-2008 Medical Director, Metropolitan Medical Strike Team, County of San Diego
- 7/96 – 7/06 Assistant Director, Department of Emergency Medicine, UCSD Medical Center
- 7/01 – 6/05 Quality Assurance Director, Department of Emergency Medicine, UCSD Medical Center
- 7/01 – 6/05 Associate Professor of Clinical Medicine, UCSD School of Medicine
- 7/01 – 12/04 Associate Medical Director, Emergency Department, UCSD-Hillcrest Medical Center and UCSD-Thornton Hospital
- 7/96 - 6/01 Assistant Clinical Professor of Medicine, UCSD School of Medicine
- 1994 - 1996 Physician, Department of Emergency Medicine, Kaiser Permanente Medical Center, San Diego, California
- 1994 - 1996 Medical Consultant, Med America Health Resource, San Diego, California
- 1/96 - 6/96 Flight Physician, Mercy Air Medical Transport Service, San Diego, California
- 7/93 - 12/95 Flight Physician, Life Flight Air Medical Transport Service, UCSD Medical Center

- 1987 - 1988 Fellow, California State Senate, Senate Committee on Insurance, Claims and Corporations, Sacramento, California
- 1986 Intern, Office of the Assistant Surgeon General, Washington, D.C.

CERTIFICATIONS:

- Advanced Cardiac Life Support Provider, 1992-96
- Advanced Cardiac Life Support Instructor, 1996
- Pediatric Advanced Life Support (PALS) Provider, 1993
- PALS Course Director for UCSD School of Medicine, 1996
- Advanced Trauma Life Support Provider, 1993
- HAZMAT Level I Training, 1996

AWARDS:

- 1984 Frank Kraft Award Scholarship, University of California, Berkeley
- 1986 Gordon Sproul Award Recipient, University of California, Berkeley
- 1987 Phi Beta Kappa, University of California, Berkeley
- 1987 University Medal Finalist, University of California, Berkeley
- 1988 California Senate Resolution of Commendation, Awarded by the Senate Rules Committee, August 22, 1988, Sacramento, California
- 1996 Outstanding Resident of the Year, Department of Emergency Medicine, University of California, San Diego Medical Center
- 1996 Resident Academic Achievement Award, Emergency Medicine Council of Residency Directors
- 1999 "Golden Apple" Teaching Award, UCSD Emergency Medicine Residency Graduating Class of 1999
- 2000 Faculty of the Year, UCSD Emergency Medicine Residency Graduating Class of 2000
- 2000 Best Research Poster Presentation, California Chapter of the American College of Emergency Physicians (CAL/ACEP) Scientific Assembly, Dana Point, California
- 2000 Outstanding Consultant for 1999-2000, presented by the *Annals of Emergency Medicine* Editorial and Consulting Boards, acknowledging dedicated effort to improve the quality of research published in the field of Emergency Medicine, and to the success of the journal
- 2001 Best Oral Presentation, CAL/ACEP Scientific Assembly, Santa Clara, California

- 2001 Top Consultant for 2000-2001, presented by the *Annals of Emergency Medicine* Editorial and Consulting Boards
- 2002 Top Consultant for 2001-2002, presented by the *Annals of Emergency Medicine* Editorial and Consulting Boards
- 2003 Top Consultant for 2002-2003, presented by the *Annals of Emergency Medicine* Editorial and Consulting Boards
- 2004 Academy of Clinician Scholars, University of California San Diego
- 2005 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2005 2005 Top Doctors, San Diego County Medical Society
- 2005 Senior Reviewer, *Annals of Emergency Medicine*
- 2006 Senior Reviewer, *Annals of Emergency Medicine*
- 2006 2006 Top Doctors, San Diego County Medical Society
- 2007 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2007 2007 Top Doctors, San Diego County Medical Society
- 2008 Finalist, Second Annual San Diego Health Care Champion Award, San Diego Business Journal
- 2008 2008 Top Doctors, San Diego County Medical Society
- 2008 Outstanding Community Partner, Community Health Improvement Partners (CHIP), Hospital Association of San Diego and Imperial Counties
- 2009 Public Health Champion Finalist, County of San Diego Health and Human Services Agency
- 2009 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2009 Award Finalist for IMPACT-ED, 14th Annual Golden Watchdog Public-Private Partnership Award Finalist, San Diego County Taxpayers Association
- 2009 America's Top Emergency Medicine Physicians, Consumers' Research Council of America
- 2010 Health Care Champion Award, 2010, San Diego Business Journal
- 2011 2011 Top Doctors, San Diego County Medical Society
- 2011 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2012 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2012 2012 Top Doctors Award, San Diego County Medical Society

- 2013 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2014 2014 Top Doctors Award, San Diego County Medical Society
- 2014 Top Peer Reviewer, *Annals of Emergency Medicine*
- 2015 2015 Top Doctors Award, San Diego County Medical Society
- 2015 Top Peer Reviewer, *Annals of Emergency Medicine*

CURRENT ACTIVITIES:

- Physician Member, Disaster Medical Assistance Team (DMAT), SD, CA (CA-4), 1994
- Reviewer, *Journal of Emergency Medicine*, Elsevier Science, Inc., 1994
- Editor, Cardiology Section, *Journal of Emergency Medicine*, Elsevier Science, Inc., 1997
- Reviewer, *Annals of Emergency Medicine*, Elsevier Science, Inc., 1998
- Member, Editorial Board, *Emergency Medicine News*, Lippincott Williams & Wilkins, 2001
- Member, Deans and Chairs Committee, University of California San Diego, 2013
- Member, University of California San Diego Health Sciences Board of Governors, 2013
- Member, University of California San Diego Medical Staff Executive Committee, 2013

PREVIOUS ACTIVITIES:

- Seminar Coordinator, Health Policy Seminars, Interdepartmental Studies 130, University of California, Berkeley, 1985-87
- Research Intern, International Debt Crisis Project, Institute of International Studies, Geneva, Switzerland, 1989
- Student Rep, Legislation Committee, California Medical Association, 1989-90
- Instructor, Science and Health Education Partnership Program, University of California, San Francisco School of Medicine, San Francisco Unified Public School District, 1989-91
- Clinical Scholars Training, Peking Union Medical College, Beijing, China, 1992
- Representative, Clinical Practice Guidelines Committee, Department of Emergency Medicine, UCSD Medical Center, 1994-96
- Representative, Quality Assurance Committee, Department of Emergency Medicine, UCSD Medical Center, 1994-96
- Representative, California Emergency Medicine Residents Association, 1995-96
- Associate Editor, *Journal of Emergency Medicine*, Pergamon Press, 1996
- Strike Team Leader, Disaster Medical Assistance Team, 1996
- Biological and Chemical Hazardous Materials Medical Support

FBI/SWAT Team Medical Support

1996 Atlanta Olympic Games

Medical Support Physician, Super Bowl XXXII, San Diego, California, January 25, 1998

Member, Managed Care Task Force, Society for Academic Emergency Medicine, 1997-98

Member, Steering Committee, CHIPS (Community Health Improvement Partners), Health Care Association of San Diego and Imperial Counties, 1997-2002

Project Co-coordinator, Influenza immunization program for New Americans in the Mid-City and City Heights communities, in conjunction with San Diego City Fire and Life Safety Services and Project Concern International, Fall 1998

Project Co-coordinator, 911 Educational Outreach Program for New Americans in the Mid-City and City Heights communities, in conjunction with San Diego City Fire and Life Safety

Services and Project Concern International, Fall 1998

Member, Pharmacy and Therapeutics Committee, UCSD Medical Center, 1998-99

Reviewer, *American Journal of Managed Care*, American Publishing Company, 1998-2001

Director, Emergency Department Clinical Resource Management, UCSD Medical Center, 1996

Co-Director, Pediatric Advanced Life Support Course, UCSD School of Medicine, 1997

Member, Research Subcommittee, Prehospital Audit Committee, San Diego County, 1997

Member, CPR Subcommittee, Prehospital Audit Committee, San Diego County, 1997

Member, Outpatient Clinical Guidelines Committee, UCSD Medical Center, 1998

Member, San Diego City EMS Oversight Committee, 1998

Member, San Diego City EMS Prehospital Cardiac Care Subcommittee, 1998

Medical Director, San Diego County Metropolitan Medical Strike Team, 1998

Reviewer, *Annals of Emergency Medicine*, Mosby, 1999

Director, Continuing Quality Assurance Program, UCSD Emergency Department, 1999

Emergency Department Quality Improvement Representative, Patient Care Review Committee, UCSD Medical Center, 2000

Point of Care Advisory Committee, UCSD Medical Center, 2000

Associate Editor, *Emergency Medicine Alert*, publication of American Health Care Consultants, Atlanta, Georgia, 2000-2005

Member, Bioterrorism Communication Collaborative, Department of Health and Human Services Agency, County of San Diego, 2001

Member, School of Medicine Graduate Medical Education Committee, 2001

Faculty Search Committee, Department of Emergency Medicine, UCSD Medical Center, 1999, 2001

Faculty, Twenty-first Annual Mammoth Mountain Emergency Medicine Conference, Mammoth Lakes, California, March 2001

Faculty, Third Annual ACEP Emergency Medicine Connection, San Diego, California, March 2001

Member, Health and Human Services Committee, San Diego Foundation, May 2001-2005

Member, Editorial Board, *Emergency Medicine Specialty Reports*, publication of American Health Care Consultants, Atlanta, Georgia, 2001-2008

Peer Reviewer, *Emergency Medicine Reports*, publication of American Health Care Consultants, Atlanta, Georgia, 2002-2009

Member, Community Acquired Pneumonia Multidisciplinary Team, JCAHO Oryx Core Measurements, UCSD Medical Center, 2002-2006

Member, Acute Myocardial Infarction Multidisciplinary Team, JCAHO Oryx Core Measurements, UCSD Medical Center, 2002-2006

Editor, *Clinical Briefs in Emergency Medicine*, publication of American Health Consultants, Atlanta, Georgia, 2003

UCSD/San Diego Sheriff Security Working Group, 2003-2007

UCSD Committee on Affirmative Action and Diversity, Member 2004-2007, Vice-Chair 2005-2006, Chair 2006-2007

Senior Reviewer, *Annals of Emergency Medicine*, Elsevier Science, Inc., 2005

Chair, Communications Subcommittee, Inpatient Task Force, UCSD Medical Center, 2005-2007

Member, UCSD Faculty Rights and Welfare Committee, 2006

Chair, San Diego Foundation Disaster Board, 2002-2011

Member, UCSD Academic Senate Council, 2006-2007

Member, UCSD Senate-Administration Council, 2006-2007

Member, US National Institute of Justice Less Lethal Technical Working Group, 2006

Member, Professional Standings Committee, UCSD Medical Center, 2006-2013

Institute of Medicine, Committee on Research Priorities in Emergency Preparedness and Response for Public Health Systems, 2007

Member, UCSD Department of Radiology Faculty Search Committee, 2007-2008

Member, UCSD Inpatient Redesign Task Force, UCSD Medical Center, 2007-2008

Member, Governor's Interagency Coordinating Council for the Prevention of Alcohol and Other Drug Problems - California Screening, Brief Intervention, and Referral to Treatment (CASBIRT) Subcommittee, 2007-2008

Member, Laboratory and Pathology Search Committee – 2007-2009

Member, California Screening Brief Intervention, Referral, and Treatment (CASBIRT), 2007-2009

Member, Thornton Improvement Task Force, 2007-2010

Member, CDC coordinating Office for Terrorism Preparedness and Emergency Response (CDC COPTER), Special Emphasis Panel for P01 RFA TP-08-001 (Preparedness and Emergency)

Response Research Centers: A Public Health Systems Approach, July 2008

Reviewer, *American Journal of Emergency Medicine*, Elsevier, Inc., 2008

Vice Chair, UCSD Committee on Academic Personnel, 2009; Member 2008-2011

Member, ED/Pharmacy Review Committee, 2008-2013

Member, USAMRMC Broad Agency Announcements Review Committee, 2009

Member, CVC Facilities and Operations Committee, 2009-2011

Member, University of California San Diego Chair of Radiology Search Committee, 2013

Chair, University of California San Diego Chair of Reproductive Medicine Search Committee, 2013

Judge, UC Health Hackathon, San Diego, CA, 2017.

RESEARCH GRANT FUNDING:

1. Co-Principal Investigator with Dr. Tom Neuman, for study entitled, "Restraint Position and Positional Asphyxia." Study funded by the County of San Diego, Grant #94-1974R, 1995. Amount: \$33,900.
2. Principal Recipient, unrestricted grant from Cook, Incorporated for Research and Education on the Melcker Cricothyrotomy Kit, 1997-98. Amount: \$10,000.
3. Co-Principal Investigator for study entitled, "Comparison of Respiratory Function in the Prone Maximal Restraint With and Without Additional Weight Force on the Back." American Academy of Forensic Sciences, with Doctors John Eisele, Jack Clausen, Tom Neuman and Gary Vilke, 1999-2000. Amount: \$3,000.
4. Principal Investigator for study entitled, "The Impact of Oleoresin Capsicum Spray on Respiratory Function in Human Subjects in the Sitting and Prone Maximal Restraint Positions." Study funded by the National Institute of Justice, U.S. Department of Justice, 1998-99. UCSD No. 98-7107; USDOJ Federal Award #98-IJ-CX-0079. 2001-02. Amount: \$128,176.
5. Co-Principal Investigator for study entitled, "Improving Access, Awareness and Use of the California Regional Poison Center in Two Ethnically Diverse Communities in San Diego." UCSD Civic Collaborative, with Dr. Richard F. Clark, 2001-02. Amount: \$5,000.
6. Co-Principal Investigator for study to design and assess the impact of a community outreach program to improve awareness and use of the California Poison Control System by Latino and other underserved communities in San Diego. Part of a Community Outreach Partnership Centers Program New Directions Grant from the

federal Office of Housing and Urban Development, with Dr. Richard Clark and Dr. Vivian Reznik (UCSD Pediatrics Department), 2002-04. Amount: \$4,000.

7. Principal Recipient, unrestricted grant from Cook, Incorporated for Research and Education on the Cuffed Melcker Cricothyrotomy Kit, 2003. Amount: \$12,000.
8. Principal Investigator & Project Director, for project on Emergency Department Crowding & Safety Net Assessment, funded by the Urgent Matters Program, Robert Wood Johnson Foundation, grant # 048545. 2004-05. Amount: \$150,000 total (\$100,000 technical assistance; \$25,000 UCSD project direction, \$25,000 safety net assessment).
9. Co-Investigator for study entitled Wireless Internet Information System for Medical Response to Disasters (WIISARD), funded by the National Library of Medicine. 2003-2008. Amount: \$3,200,000.
10. Co-Principal Investigator, with Dr. Daniel Davis, for study entitled Emergency Department National Alcohol Screening Day, Alcohol Education Project, funded by NIH, grant #1 R03 AA015120-01. 2005. Amount: \$25,000.
11. Co-Principal Investigator, with Dr. Gary Vilke, for study entitled, "The effect of Taser on Cardiac, Respiratory and Metabolic Physiology in Human Subjects." Study funded by the National Institute of Justice, U.S. Department of Justice, 2005-7. UCSD No. 2006-0846; USDOJ Federal Award #98-IJ-CX-0079. Amount: \$213,941.49
12. Principal Investigator, for study entitled, "Improving Medical Home and Primary Care Access to the Community Clinics Through the ED (IMPACT-ED)." Study funded by the Alliance Healthcare Foundation, 2006-7. Alliance Grant #06-3114. Amount: \$25,000.
13. Principal Investigator, for study entitled, "Evaluation of the Ventilatory and Respiratory Effects of a Restraint Chair on Human Subjects." Study funded by the Institute for the Prevention of In-Custody Deaths, Inc., 1/1/07 to 12/31/07. Amount: \$11,658.00
14. Co-Principal Investigator, with Jean Marshall, RN, for study entitled, "Impact of the State Mandated Nurse-Patient Ratio on ED Crowding, Flow and Patient Care". EMF/ENAF (Emergency Medicine Foundation / Emergency Nurses Association Foundation) Directed Team Grant, ED Overcrowding Research Award, 2007-08. Amount: \$50,000.
15. Co-Principal Investigator, with Dr. Joshua Lee, for project entitled, "San Diego Safety Net Health Information Exchange." Project funded by Pacificare/United Healthcare, 2008-2011. Amount: \$715,000.
16. Co-Investigator for study entitled, "California ED Diversion Project Evaluation." Funded by the California Healthcare Foundation, 05/2008 to 11/2008. Amount \$50,990.

17. Co-Investigator for study entitled, "Safety Net Connect." Funded by the Agreement for Healthcare Safety Net Services, County of San Diego Health and Human Services Agency, 09/2008 to 01/2011. Amount: \$2,016,196.
18. Co-Principal Investigator for study entitled Wireless Internet Information System for Medical Response to Disasters (WIISARD SAGE), funded by the National Library of Medicine, RO1LM009522-01A1. 10/2010-10/2012. Amount: \$3,763,964.
19. Principal Investigator, for study entitled, "ONC/San Diego Beacon Community Collaborative Grant." to advance health information technology. Funded by Office of the National Coordinator for Health Information Technology, Health Resources and Services Administration, 90BC0015/01, 04/2010 to 10/2013. Amount: \$15,275,115.
20. Co-Investigator with Dr. James Killeen for study entitled "National Strategy for Trusted Identities in Cyberspace (NSTIC): Identity Ecosystem for Patient-Centered Coordination of Care", funded by the National Institute for Standards and Technology. Grant #70NANB12D296 9/2012-9/2013. Amount \$165,000.
21. Co-Principal Investigator with Dr. Kevin Patrick for study entitled "DELPHI: Data e-Platform to Leverage multi-level Personal Health Information", funded by the National Science Foundation. NSF #1237174. 10/2012-9/2016. Amount: \$2.0 million.
22. Co-Investigator with Dr. Gary Vilke for study entitled "EXCITATION: Unexplained In-custody Deaths: Evaluating Biomarkers of Stress and Agitation", funded by the National Institute of Justice, US Department of Justice. NIJ Award 2012-R2-CX-K006 11/2012-11/2014. Amount \$431,942.
23. Co-Investigator for study entitled, "Point-of-Care Testing for Illicit Drugs and Alcohol Intoxication in an Emergency Room". Funded by the National Institute on Drug Abuse through Seacoast Science, Inc., 2013-2015. Amount: \$50,163.
24. Co-Investigator for study entitled, "Exploring emergency room physician's knowledge and attitudes concerning the use of appropriate and safe home care as an alternative to hospital admission." Funded by the Gary and Mary West Health Institute, 2014-2015. Amount: \$118,021.
25. Principal Investigator with Dr. James Killeen for study entitled: The Gary and Mary West Geriatric Center of Excellence (West COE): Phase 1 Research Development, funded by the Gary and Mary West Health Institute. 9/15-3/16. Amount \$243,610.
26. Co-Investigator for study entitled, "Acute Care at Home." Funded by the Gary and Mary West Health Institute, 2015-17. Amount: \$499,125.
27. Co-Investigator for study entitled, "Observational Evaluation of GED's." Funded by Gary and Mary West Health Institute, 2016-17. Amount: \$77,800.
28. Co-Investigator for study entitled, "Telemedicine Services for Senior Assisted Living Sites". Funded by Gary and Mary West Health Institute, 2017 – present. Amount: \$2,616,445.

29. Principal Investigator for The Gary and Mary West Geriatric Center of Excellence: Phase 2 Implementation, funded by the Gary and Mary West Health Institute, 4/16 3/17. Amount: \$261,169.
30. Senior Co-Investigator with Dr. Vaishal Tolia for the Gary and Mary West Geriatric Center of Excellence: Phase 3 Implementation, funded by the Gary and Mary West Health Institute, 3/17 – present. Amount: \$2,405,584.

PUBLICATIONS:

Articles

1. Chan TC, Williams SR, Clark RF: Formic acid burns resulting in systemic toxicity. Ann Emerg Med 1995;26(3):383-386.
2. Chan T, Vilke GM, Williams S: Bidirectional tachycardia associated with digoxin toxicity. J Emerg Med 1995;13(1):89.
3. Bauman BH, Vilke G, Chan T: Dexamethasone use in croup. West J Med 1996;164(1):66.
4. Chan TC, Krishel SJ, Bramwell KJ, Clark RF: Survey of illegal immigrants seen in an emergency department. West J Med 1996;164(3):212-216.
5. Chan T, Dunford J: Severe tophaceous gout. J Emerg Med 1996;14(2):223.
6. Chan TC, Hayden S: Early retropharyngeal abscess formation after treatment of scarlet fever. J Emerg Med 1996;14(3):377.
7. Chan TC: Supracondylar fracture. J Emerg Med 1997;15(1):99.
8. Chan TC, Evans SD, Clark RF: Drug-induced hyperthermia. Crit Care Clinics North Am 1997;13(4):785-808.
9. Chan TC, Hayden SR, Schwartz B, Fletcher T, Clark RF: Patients' satisfaction when denied authorization for emergency department care by their managed care plan. J Emerg Med 1997;15(5):611-616.
10. Chan TC, Vilke GM, Neuman T, Clausen JL: Restraint position and positional asphyxia. Ann Emerg Med 1997;30(5):578-586.
11. Moss ST, Chan TC, Buchanan J, Dunford JV, Vilke GM: Outcome study of prehospital patients signed out against medical advice by field paramedics. Ann Emerg Med 1998;31(2):247-250.
12. Chan TC, Vilke GM, Neuman T: Reexamination of custody restraint position and positional asphyxia. Am J Forensic Med Pathol 1998;19(3):201-205.

13. Howard JD, Reay DT [32(1):116-117] / Chan TC, Vilke GM, Neuman T, Clausen J: Positional asphyxia (Reply to letter to the editor). *Ann Emerg Med* 1998;32(1):117-118.
14. Vilke GM, Mahoney G, Chan TC: Postpartum coronary artery dissection. *Ann Emerg Med* 1998;32(2):260-262.
15. Ma G, Chan TC: Atlantoaxial dislocation. *J Emerg Med* 1999;17(1):113-114.
16. Friedman L, Vilke GM, Chan TC, Hayden SR, Guss DA, Krishel SJ, Rosen P: Emergency department airway management before and after an emergency medicine residency. *J Emerg Med* 1999;17(3):427-431.
17. Brady WJ, Chan TC: Electrocardiographic manifestations: Benign early repolarization. *J Emerg Med* 1999;17(3):473-478.
18. Cardall TY, Chan TC, Brady WJ, Perry JC, Vilke GM, Rosen P: Permanent cardiac pacemakers: Issues relevant to the emergency physician, Part I. *J Emerg Med* 1999;17(3):479-489.
19. Cardall TY, Brady WJ, Chan TC, Perry JC, Vilke GM, Rosen P: Permanent cardiac pacemakers: Issues relevant to the emergency physician, Part II. *J Emerg Med* 1999;17(4):697-709.
20. Vilke GM, Buchanan J, Dunford JV, Chan TC: Are heroin overdose deaths related to patient release after prehospital treatment with naloxone? *Prehosp Emerg Care* 1999;3(3):183-186.
21. Roppolo LP, Vilke GM, Chan TC, Krishel S, Hayden SR, Rosen P: Nasotracheal intubation in the emergency department, revisited. *J Emerg Med* 1999;17(5):791-799.
22. Chan TC, Brady WJ, Pollack M: Electrocardiographic manifestations: Acute myopericarditis. *J Emerg Med* 1999;17(5):865-872.
23. Chan TC, Neuman T, Vilke GM, Clausen J, Clark RF: Metabolic acidosis in restraint-associated cardiac arrest (Letter to the editor). *Acad Emerg Med* 1999;6(10):1075-1076.
24. Chan TC, Vilke GM, Bramwell KJ, Davis DP, Hamilton RS, Rosen P: Comparison of wire-guided cricothyrotomy versus standard surgical cricothyrotomy technique. *J Emerg Med* 1999;17(6):957-962.
25. Reay DT, Howard JD [20(3):300-301] / Chan TC, Vilke GM, Neuman T: Restraint position and positional asphyxia (Reply to letter to the editor). *Am J Forensic Med Pathol* 2000; 21(1):93.
26. Brady WJ, Chan TC, Pollack M: Electrocardiographic manifestations: Patterns that confound the EKG diagnosis of acute myocardial infarction - Left bundle branch block, ventricular paced rhythm, and left ventricular hypertrophy. *J Emerg Med*

2000;18(1):71-78.

27. Torbati SS, Chan TC: Classic helical CT scan findings of acute appendicitis. J Emerg Med 2000;18(1):101.
28. Vilke GM, Chan TC, Guss DA: Use of a complete neurological examination to screen for significant intracranial abnormalities in minor head injury. Am J Emerg Med 2000;18(2): 159-163.
29. Vilke GM, Chan TC, Neuman T, Clausen JL: Spirometry in normal subjects in sitting, prone, and supine positions. Respir Care 2000;45(4):407-410.
30. Davis DP, Bramwell KJ, Hamilton RS, Chan TC, Vilke GM: Safety and efficacy of the rapid four-step technique for cricothyrotomy using a Bair Claw. J Emerg Med 2000;19(2):125-129.
31. Chan TC: Diagnostic imaging for appendicitis. Emergency Medicine Alert 2000;7(2):12-15.
32. Sloane C, Vilke GM, Chan TC, Hayden SR, Hoyt DB, Rosen P: Rapid sequence intubation in the field versus hospital in trauma patients. J Emerg Med 2000;19(3):259-264.
33. Ochs M, Vilke GM, Chan TC, Moats T, Buchanan J: Successful prehospital airway management by EMT-Ds using the Combitube. Prehosp Emerg Care 2000;4(4):333-337.
34. Vilke GM, Marino A, Iskander J, Chan TC: Emergency department patient knowledge of medications. J Emerg Med 2000;19(4):327-330.
35. Chan TC, Vilke GM, Clausen J, Clark R, Schmidt P, Snowden T, Neuman T: The impact of oleoresin capsicum spray on respiratory function in human subjects in the sitting and prone maximal restraint positions, final report. NCJ 182433. Washington, DC: United States Department of Justice, National Institute of Justice, 2000, 68 pages.
36. Pollack ML, Chan TC, Brady WJ: Electrocardiographic manifestations: Aberrant ventricular conduction. J Emerg Med 2000;19(4):363-367.
37. Ma G, Brady WJ, Pollack M, Chan TC: Electrocardiographic manifestations: Digitalis toxicity. J Emerg Med 2001;20(2):145-152.
38. Vilke GM, Chan TC: Physician effect on out of hospital patients signing out against medical advice. Pre-hospital Immediate Care 2001;5(1):38-40.
39. Brady WJ, Perron AD, Chan T: Electrocardiographic ST-segment elevation: Correct identification of acute myocardial infarction (AMI) and non-AMI syndromes by emergency physicians. Acad Emerg Med 2001;8(4):349-360.

40. Brady WJ, Erling B, Pollack M, Chan TC: Electrocardiographic manifestations: Acute posterior wall myocardial infarction. J Emerg Med 2001;20(4):391-401.
41. Brady WJ, Aufderheide TP, Chan T, Perron AD: Electrocardiographic diagnosis of acute myocardial infarction. Emerg Med Clin North Am 2001;19(2):295-320.
42. Patel RJ, Vilke GM, Chan TC: The prehospital electrocardiogram. J Emerg Med 2001; 21(1):35-39.
43. Harrigan R, Brady W, Chan T: Cases in Electrocardiography - The Symptoms: Lethargy and tachycardia following antidepressant ingestion. The Diagnosis: Tricyclic antidepressant overdose. Emergency Medicine News 2001;XXIII(6):30,32.
44. Chan TC: What's new in antibiotic therapy for acute otitis media. Emergency Medicine Alert 2001;8(2):12-15.
45. Seltzer AG, Vilke GM, Chan TC, Fisher R, Dunford JV: Outcome study of minors after parental refusal of paramedic transport. Prehosp Emerg Care 2001;5(3):278-283.
46. Vilke GM, Marino A, Fisher R, Chan TC: Estimation of pediatric patient weight by EMT-Ps. J Emerg Med 2001;21(2):125-128.
47. Ho C, Coimbra R, Hoyt DB, Chan TC: Severe traumatic brain injury from unmotorized scooter. J Emerg Med 2001;21(2):133-136.
48. Chan T, Harrigan R, Brady W: Cases in Electrocardiography - The Symptoms: HIV-positive, hypertensive, unresponsive. The Diagnosis: Verapamil-ritonavir drug interaction. Emergency Medicine News 2001;XXIII(9):22,25.
49. Chan TC, Vilke GM, Pollack M, Brady WJ: Electrocardiographic manifestations: Pulmonary embolism. J Emerg Med 2001;21(3):263-270.
50. Ullman E, Brady WJ, Perron AD, Chan T, Mattu A: Electrocardiographic manifestations of pulmonary embolism. Am J Emerg Med 2001;19(6):514-519.
51. Brady WJ, Harrigan R, Chan T: Cases in Electrocardiography - The Symptoms: Chest pain with ST segment elevation in a cocaine user. The Diagnosis: Benign early repolarization. Emergency Medicine News 2001;XXIII(12):24,30,36.
52. Chan TC, Vilke GM, Clausen J, Clark R, Schmidt P, Snowden T, Neuman T: Pepper spray's effects on a suspect's ability to breathe. Research in Brief (NCJ 188069), December 2001. Washington, DC: United States Department of Justice, National Institute of Justice.
53. Vilke GM, Steen PJ, Smith AM, Chan TC: Out-of-hospital pediatric intubation by paramedics: The San Diego experience. J Emerg Med 2002;22(1):71-74.

54. Chan TC, Vilke GM, Clausen J, Clark RF, Schmidt P, Snowden T, Neuman T: The effect of oleoresin capsicum “pepper” spray inhalation on respiratory function. *J Forensic Sci* 2002;47(2):299-304.
55. Fijewski TR, Pollack ML, Chan TC, Brady WJ: Electrocardiographic manifestations: Right ventricular infarction. *J Emerg Med* 2002;22(2):189-194.
56. Harrigan R, Chan T, Brady W: Cases in Electrocardiography - The Symptoms: Dyspnea and chest pain. The Diagnosis: Pulmonary embolism. *Emergency Medicine News* 2002; XXIV(3):8,12.
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106. Chan TC, Killeen JP, Castillo EM, Vilke GM, Guss DA. Impact of electronic medication reconciliation on triage times for patients seen in the emergency department. *Ann Emerg Med* 2007; 50(3 Suppl 1):S71.
107. Vilke G, Chan T, Killen J, Castillo E. Impact of psychiatric patient holds on the emergency department overcrowding. *Acad Emerg Med* 2008; 15(5 Suppl 1):S221.
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110. Chan TC, Killeen JP, Vilke GM, Guss DA, Jones K, Marshall J, Moore T, Castillo EM. Impact of mandated nurse-patient ratios on emergency department crowding. *Ann Emerg Med* 2008; 52(4):S44.

111. Bizek G, Castillo E, Vilke G, Chan T. Characteristics and rates of rewarming of emergency department patients with moderate to severe accidental hypothermia. *Ann Emerg Med* 2008; 52(4):S104-S105.
112. Vilke GM, Killeen JP, Chan TC, Crumpacker J, Castillo EM. Risk factors and characteristics of falls among emergency department elderly patients. *Ann Emerg Med* 2008; 52(4):S160.
113. Marsan R, Castillo E, Chan T, Stepanski B, Vilke G. Comparison of prehospital retrospective chart review to prospectively obtained data. *Acad Emerg Med* 2009; 16(4):S85-S86.
114. Killeen D, Killeen J, Castillo E, Chan T, Vilke G. Emergency department patient evaluation of internet and email access for healthcare information. *Acad Emerg Med* 2009; 16(4):S132-S133.
115. Sloane C, Chan T, Kohlkorst F, Castillo E, Neuman T, Vilke G. Can a restraint chair cause respiratory or ventilatory compromise? *Acad Emerg Med* 2009; 16(4):S137.
116. Castillo E, Vilke G, Killeen J, Guss D, Marshall J, Chan T. Impact of mandated nurse-patient ratios on ED medication delivery. *Acad Emerg Med* 2009; 16(4):S157-S158.
117. Castillo E, Vilke G, Killeen J, Guss D, Feinberg R, Freidman L, Chan T. Factors associated with community clinic follow-up from an ED internet-based referral system. *Acad Emerg Med* 2009; 16(4):S247-S248.
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119. Chan TC, Killeen JP, Castillo EM, Lee J. San Diego Safety New Health Information Exchange. *Ann Emerg Med* 2011;58(4) S390.
120. Chan TC, Killeen JP, Rafie S, Humber DM, Chan TC. Emergency Department Care Provider Perception of Department-Based Pharmacist Services. *Ann Emerg Med* 2011;58(4) S443.
121. Savaser DJ, Campbell CC, Chan TC, Shah V, Sloane CS, Hansen AV, Castillo EM, Vilke GM. The Effect of Prone Maximal Restraint (PMR, aka "Hog-Tie") Position on Cardiac Output and Other Hemodynamic Measurements. *Acad Emer Med* 2012;19(4):S78.
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123. Killeen JP, Castillo EM, Chan TC, Vilke GM. Emergency Department Patients on Warfarin - How Often Is the Visit Due to the Medication? *Acad Emer Med* 2012;19(4):S121.

124. Killeen JP, Chan TC, Vilke GM, Rafie S, Dunlay R, Castillo EM. Does Pharmacist Review of Medication Orders Delay Medication Administration in the Emergency Department? Acad Emer Med 2012;19(4):S166.
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126. Castillo EM, Chan TC, Brennan JJ, Killeen JP, Vilke GM. Multiple Hospital Emergency Department Visits Among “Frequent Flyer” Patients With A Pain Associated-discharge Diagnosis. Acad Emer Med 2012;19(4):S321.
127. Killeen JP, Vilke GM, Dunford JV, Fisher R, Pringle J, Castillo EM, Chan TC: Impact of 12-lead ECG Wireless Transmission on Hospital STEMI Activations. Ann Emer Med 2012;60(4)S25.
128. Castillo EM, Brennan JJ, Chan TC, Killeen JP, Vilke GM: Factors Associated With Frequent Users of Emergency Department Resources. Ann Emer Med 2012;60(4)S32.
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130. Castillo EM, Chan TC, Killeen JP, Vilke GM: Knowledge of Acute Myocardial Infarction Symptoms: Do Sex Differences Still Exist? Ann Emer Med 2012;60(4)S83.
131. Chan TC, Castillo EM, Dunford JV, Fisher R, Jensen AM, Vilke GM, Killeen JP: Hot Spots and Frequent Fliers: Identifying High Users of Emergency Medical Services. Ann Emer Med 2012;60(4) S83-S84.
132. Brennan JJ, Chan TC, Vilke GM, Killeen JP, Castillo EM: Identification of Frequent Users of Hospital Emergency Department Resources Using a Community-wide Approach. Ann Emer Med 2012;60(4)S102
133. Chan TC, Killeen JP, Brennan JJ, Vilke GM, Castillo EM: The Forgotten Emergency Department Visit When Assessing Hospital Readmissions. Ann Emer Med 2012;60(4)S105.
134. Brennan JJ, Chan TC, Killeen JP, Castillo EM, Vilke GM: Multiple Hospital Emergency Department Visits Among “Frequent Flyer” Patients With a Psychiatric-Associated Discharge Diagnosis. Ann Emer Med 2012;60(4) S146-S147.
135. Sloane C, Chan TC, Vilke GM, Castillo EM, Kolkhorst F, Neuman T: The Ventilatory Effects of the Prone Maximal Restraint Position on Obese Human Subjects. Acad Emer Med 2013;20(5):S105.

136. Hogen R, Brennan JJ, Vilke GM, Chan TC, Castillo EM: Visit Urgency amongst the Chronic Disease Population in a Large Metropolitan Region Emergency Department Network. Acad Emer Med 2013;20(5):S172.
137. Castillo EM, Chan TC, Vilke GM, Killeen JP, Brennan JJ: Factors Associated with Super Users of Emergency Department Resources Admitted to Acute Care. Acad Emer Med 2013;20(5):S183.
138. Brennan JJ, Chan TC, Vilke GM, Castillo EM, Killeen JP: Comorbidity among Frequent Emergency Department Users with Psychiatric Associated Discharge Diagnoses. Acad Emer Med 2013;20(5):S229.
139. Brennan JJ, Castillo EM, Vilke GM, Killeen JP, Chan TC: Factors Associated with Frequent Users of California Emergency Department Resources. Acad Emer Med 2013;20(5):S230.
140. Chan TC, Brennan JJ, Killeen JP, Stevenson ME, Kuntz KE: Impact of Social Services Case Management on Homeless, Frequent Users of Emergency Departments. Acad Emer Med 2013;20(5):S231.
141. Brennan JJ, Chan TC, Hsia RY, Vilke GM, Killeen JP, Castillo EM: Predicting Frequent Use of Emergency Department Resources. Ann Emer Med 2014; 64(4):S118-S119.
142. Brennan JJ, Chan TC, Vilke GM, Hsia RY, Killeen JP, Castillo EM. Traveling Super Users of California Emergency Departments. Acad Emerg Med 2014; 21(Supp 1):S220
143. Castillo EM, Dang AQ, Chan TC, Vilke GM: Mortality and Timing of Death in Patients with Runaway Pacemakers. Ann Emer Med 2014; 64(4):S111.
144. Castillo EM, Brennan JJ, Killeen JP, Chan TC. Identifying frequent users of emergency department resources. J Emerg Med. 2014 Sep;47(3):343-7.
145. Castillo, EM, Brennan JJ, Hsia RY, Killeen JP, Vilke, GM, Chan TC. Thirty-day Readmissions Through the Emergency Department in a Large, Metropolitan Region. Acad Emerg Med 2014; 21(Supp 1):S108.
146. Castillo EM, Chan TC, Hsia RY, Killeen JP, Vilke GM, Brennan JJ. Should Rural Hospitals be Concerned about Frequent Users of Emergency Department Resources? Acad Emerg Med 2014; 21(Supp 1):S218.
147. Castillo EM, Brennan JJ, Hsia RY, Killeen JP, Vilke GM, Chan TC. Multiple Emergency Department Use and 30-day ED Visits. Acad Emerg Med 2014; 21(Supp 1):S322.
148. Chan TC, Killeen JP, Vilke GM, Castillo EM: Impact of the Affordable Care Act on the Health Care Coverage of Patients Seen in the Emergency Department: Initial First Quarter Findings. Ann Emer Med 2014; 64(4):S84-S85.

149. Killeen JP, Castillo EM, Brennan JJ, Vilke GM, Chan TC. Does Emergency Department Interrogation Reduce ED Time for Patients with Pacemakers or ICDs? *Acad Emerg Med* 2014; 21(Supp 1):S274.
150. Vilke GM, Chan TC, Roberts EE, Moore JD, Parra KM, Castillo EM. Does Law Enforcement Use Different Levels of Force if the Subject Appears to be Mentally Impaired? *Acad Emerg Med* 2014; 21(Supp 1): S238.
151. Vilke GM, Lasoff D, Chan TC, Hall CA, Bozeman WP, Castillo EM. Proning: Outcomes of Use of Force Followed with Prone Restraint. *Acad Emerg Med* 2014; 21(Supp 1): S161
152. Vilke GM, Lev R, Chan TC, Lucas J, Smith J, Painter NA, Castillo EM: Prescription Drug Prescribing Patterns in a Large Regional Area. *Ann Emer Med* 2014; 64(4):S139-S140.
153. Brennan JJ, Vilke GM, Hsia RY, Chan TC, Killeen JP, Huang J, Castillo EM. Transient Ischemic Attack “Bouncebacks”: Emergency Department Discharges Who Return as Admissions Within Seven Days. *Ann Emerg Med* 2015; 66(4s):S112.
154. Brennan JJ, Chan TC, Vilke GM, Killeen JP, Hsia RY, Tehaney K, Castillo EM. Admissions Within Seven Days of an Emergency Department Discharge. *Ann Emerg Med* 2015; 66(4s):S89.
155. Brennan JJ, Tomaszewski C, Chan TC, Hsia RY, Castillo EM. Seven and Thirty-day Hospital Admissions following an Emergency Department Discharge. *Acad Emerg Med* 2015; 22(Supp 1): S146.
156. Castillo EM, Chan, TC, Vilke GM, Hsia RY, Ishimine P, Shah S, Kapoor K, Brennan JJ. A Description of Pediatric Frequent Users of Emergency Department Resources. *Ann Emerg Med* 2015; 66(4s):S8
157. Killeen JP, Chan TC, Castillo EM, Grisworld WG. Integrating Environmental Data into a Personal Health Record for Asthma Patients. *Ann Emerg Med* 2015; 66(4s):S101.
158. Brennan JJ, Vilke GM, Chan TC, Killeen JP, Hsia RY, Castillo EM. ED Revisits Within 3 Days of an ED Discharge Among Elderly Patients. *Acad Emerg Med* 2016; 23:S169.
159. Castillo EM, Brennan JJ, Chan TC, Killeen JP, Hsia RY, Vilke GM. ED Utilization 3-Days Prior to a Fall-Related ED Visit Among Elderly Patients. *Acad Emerg Med* 2016; 23:S139.
160. Chan TC, Brennan JJ, Vilke GM, Hsia RY, Killeen JP, Castillo EM. The Changing Landscape of Emergency Department Visits in California. *Acad Emerg Med* 2016; 23:S15

ORAL PRESENTATIONS AT NATIONAL MEETINGS:

1. Chan TC, Buchanan J, Anderson M, Vilke GM: Patient ethnicity and age in prehospital emergency ambulance use and acuity rates. NAEMSP Mid-Year Meeting, Lake Tahoe, Nevada; July 1998.
2. Vilke GM, Dunford JV, Buchanan J, Chan TC: Are opiate overdose deaths related to patient release after naloxone? ACEP Research Forum, San Diego, California; October 1998.
3. Vilke GM, Chan TC, Ray LU, Anderson ME: Use of prehospital crash injury data to assess regional automobile safety restraint use. NAEMSP Annual Meeting, Marcos Island, Florida; January 1999.
4. Chew GS, Chan TC, Bramwell K, Davis DP, Vilke GM: Does gastric distention from air insufflation affect the accuracy of the syringe esophageal detector device in detecting esophageal intubation? SAEM Western Regional Research Forum, Redondo Beach, California; March 1999.
5. Marino AT, Sharieff G, Gerhart AE, Chan TC, Vilke GM: The efficacy and complication rate of prehospital midazolam for the treatment of pediatric seizures. NAEMSP Annual Meeting, Dana Point, California; January 2000.
8. Eisele JW, Chan T, Vilke G, Neuman T, Clausen J: Effect of weight placed on the back of subjects in the hobble restraint position. American Academy of Forensic Sciences Annual Meeting, Reno, Nevada; February 2000.
9. Chan TC, Vilke GM, Neuman TS, Clark RF, Clausen JL: The effect of oleoresin capsicum spray inhalation on pulmonary and respiratory function. SAEM Western Regional Research Forum, Portland Oregon; April 2000.
10. Vilke GM, Chan TC, Seltzer A, Fisher R, Dunford JV: Outcome of out-of-hospital refusal of paramedic transport by parents of pediatric patients. State of California EMS Authority Annual EMS for Children Conference, San Diego, California; November 2000.
11. Deitch S, Vilke GM, Marino A, Vroman D, Chan TC: Effect of prehospital use of nitroglycerine on EKG findings in patients with chest pain. American Academy of Emergency Medicine (AAEM) Annual Conference, Orlando, Florida; March 2001.
12. Vilke GM, Steen PJ, Smith AM, Chan TC: Pediatric intubation by paramedics: The San Diego County experience. SAEM Western Regional Research Forum, Irvine, California; March 2001.
13. Chan TC, Dunford JV, Vilke GM: Impact of a community multidisciplinary homeless outreach team. SAEM Annual Meeting, Atlanta, Georgia; May 2001.
14. Chan TC, Dunford JV, Vilke GM: Impact of a community multidisciplinary homeless outreach team. CAL/ACEP Scientific Assembly, Santa Clara, California; June 2001. (Won Award for Best Oral Presentation)

15. Clark RF, Phillips M, Manoguerra AS, Chan TC: Home calls from predominantly Latino communities to a regional poison center. North American Congress of Clinical Toxicology, Montreal, Canada; October 2001.
16. Vilke GM, Lev R, Castillo EM, Metz MA, Murrin PA, Chan TC: Prospective countywide trial to decrease ambulance diversion hours. SAEM Western Regional Meeting, Scottsdale, Arizona; April 2003.
17. Killeen JP, Chan TC, Smith M, Hutches D, Hidley G, Lenert L: Prehospital Field Telemedicine Evaluation Utilizing 1xEV-DO Wireless Internet. American Telemedicine Association Annual Meeting, Orlando, Florida; April 2003.
18. Vilke GM, Lev R, Castillo EM, Metz MA, Murrin PA, Chan TC. The effect of decreasing ambulance diversion hours on emergency department interfacility transfers. ACEP Annual Meeting, Boston, Massachusetts, October 2003.
19. Killeen J, Chan TC. A wireless first responder handheld device for rapid triage, patient assessment and documentation during mass casualty incidents. AMIA Annual Symposium, Washington, DC, November 2006.
20. Lenert LA, Chan TC, et al: Wireless internet information system for medical response in disasters (WIISARD). AMIA Annual Symposium, Washington, DC, November 2006.
21. Chan TC, Killeen JP, Vilke GM, Guss DA, Jones K, Marshall J, Moore T, Castillo EM. Impact of mandated nurse-patient ratios on emergency department crowding. ACEP Annual Meeting, Chicago, Illinois, October 2008.
22. Castillo E, Vilke G, Killeen J, Guss D, Marshall J, Chan T. Impact of mandated nurse-patient ratios on ED medication delivery. SAEM Annual Meeting, New Orleans, Louisiana, May 2009.
23. Castillo EM, Killeen JP, Brennan JJ, Vilke GM, Hsia R, Chan TC. Thirty-day Readmissions Through The Emergency Department In A Large, Metropolitan Region. SAEM Annual Meeting, Dallas, TX, May 2014.
24. Castillo EM, Brennan JJ, Hsia R, Killeen JP, Vilke GM, Chan TC. Multiple Emergency Department Use and 30-day ED Visits. SAEM Annual Meeting, Dallas, TX, May 2014.
25. Knepper MM, Castillo EM, Chan TC, Guss DA. The Effects of Access to Electronic Health Records on Throughput Efficiency and Imaging Utilization in the Emergency Department. SAEM Annual Meeting, Dallas, TX, May 2014.

PRESENTATIONS/SPEAKING ENGAGEMENTS:

1. "Anorectal Disorders and Emergencies" -- Emergency Medicine Core Curriculum Conference, UCSD Medical Center; December 1993.
2. "Ear and Nose Emergencies" -- Emergency Medicine Core Curriculum Conference, UCSD Medical Center; January 1995.
3. "Marine Envenomations" -- Emergency Medicine Toxicology Conference, UCSD Medical Center; August 1995.
4. "Child Abuse in the Emergency Department" --
 - Emergency Medicine Core Curriculum Conference, UCSD Medical Center; September 1995.
 - Noon Conference, Department of Emergency Services, San Francisco General Hospital; January 1996.
5. "Thrombolytics in Noncardiac Emergencies" -- Grand Rounds, Department of Emergency Medicine, UCSD Medical Center; May 1996.
6. "Billing in the Emergency Department" -- Emergency Medicine Resident Orientation, UCSD Medical Center; July 1996.
7. "EMS Data Innovations - Prehospital AMA Patients" -- Shaping EMS for the 21st Century Conference, Emergency Medical Services Administrators Association of California, San Diego, California; May 1997.
8. "Non-accidental Trauma (NAT)" -- County-wide Field Care Audit, presented by Mercy Hospital and UCSD Medical Center, San Diego, California; May 1998.
9. "Trauma" -- UCSD National City School District Systemic Teacher Enhancement Project, National City, California; June 1998.
10. "Prehospital Research" -- Prehospital Audit Committee, County of San Diego; September 15, 1998.
11. "Emergency Medicine Research" -- Howard Hughes Student Lecture, UC San Diego, November 3, 1998.
12. "The Impact of Oleoresin Capsicum Spray on Respiratory Function in the Sitting and Hobble Restraint Positions" --
 - San Diego Regional Public Safety Training Institute; March 11, 1999.
 - San Diego SWAT Teams Unit; May 12, 1999.
13. "Studies in Restraint Physiology" -- Grand Rounds, Department of Emergency Medicine, UCSD Medical Center; July 13, 1999.
14. Results of the National Institute of Justice Study on Oleoresin Capsicum Spray, sponsored by the U.S. Department of Justice -- San Diego Regional Public Safety Training Institute; September 30, 1999.

15. "Outpatient Treatment of Deep Venous Thrombosis" -- Clinical Practice Guidelines for the Primary Care Physician, sponsored by UCSD School of Medicine, San Diego, California; November 20, 1999.
16. "Restraint Position and Positional Asphyxia" -- Invited presentation to the Health and Human Services Subcommittee, Grand Jury, County of San Diego; November 1999.
17. "Management and Triage of Heart Failure Patients in the Emergency Department" -- Congestive Heart Failure Task Force Conference, UCSD Medical Center; January 26, 2000, February 9, 2000.
18. "Anatomy of a Lawsuit: The Dollars, Sense, and Strategies of Medical Malpractice Litigation" --
 - Housestaff Association, Alumni and Faculty, UCSD Medical Center; March 15, 2000.
 - Department of Medicine Noon Conference, UCSD Medical Center; March 16, 2000.
19. Findings of the National Institute of Justice Study on Oleoresin Capsicum Spray and Respiratory Function -- Nonlethal Defense IV Conference, National Defense Industrial Association, Tysons Corner, Virginia; March 22, 2000.
20. "Overview of Findings From Study on Positional Asphyxia and Pepper Spray" -- to the Liability Panel, Less-Than-Lethal Technology and Policy Assessment, National Institute of Justice, United States Department of Justice, Washington, DC; June 20, 2000.
21. "Positional Asphyxia Review" -- 2000 PPCT Use of Force Conference, St. Louis, Missouri; July 14, 2000.
22. Keynote Address: "Myocardial Reperfusion" -- Emergency Medicine in Jackson Hole Conference, Jackson Hole, Wyoming; August 14, 2000.
23. Difficult Airway Panel (Davis D, Wolfe R, Chan T, Bramwell K) -- Emergency Medicine in Jackson Hole Conference, Jackson Hole, Wyoming; August 15, 2000.
24. "Conscious Sedation" -- Emergency Medicine in Jackson Hole Conference, Jackson Hole, Wyoming; August 17, 2000.
25. Airway Workshop (Wolfe R, Chan T, Bramwell K, Davis D) -- Emergency Medicine in Jackson Hole Conference, Jackson Hole, Wyoming; August 17, 2000.
26. "Findings of the National Institute of Justice Oleoresin Capsicum Exposure and Restraint Study" -- San Diego Special Enforcement Detail (SWAT), County of San Diego, California; October 18, 2000.
27. "OC Spray and Positional Asphyxia: Separating Fact from Fiction" -- International Association of Chiefs of Police 107th Annual Conference, San Diego, California; November 11, 2000.

28. "Positional Asphyxia and Oleoresin Capsicum: Results of the National Institute of Justice Study" -- Non-Lethal Chemical Agents for Trainers Conference, Carlsbad, California; November 15, 2000.
29. "Common ENT Emergencies Seen in the ED"; "Non-accidental Trauma"; "New Strategies for Acute Myocardial Perfusion"; "Procedural Analgesia and Sedation" -- Mammoth Mountain Emergency Medicine Conference, Mammoth Lakes, California; March 5-6, 2001.
30. "Emerging Infections: The Coming Plague" -- ACEP Emergency Medicine Connection, San Diego, California; March 20, 2001.
31. "Emergency Procedural Analgesia & Sedation" -- CAL/ACEP Scientific Assembly, Santa Clara, California; June 8, 2001.
32. "Clinical Aspects of Bioterrorism" -- San Diego County Health and Human Services; December 6, 2001.
33. "Awareness and Use of the California Regional Poison Center in Two Ethnically Diverse Communities in San Diego" -- San Diego Briefings of the UCSD Civic Collaborative, San Diego, California; March 19, 2002.
34. "Bio-Terrorism: Disaster Preparedness in San Diego" -- Emergency Department Second Annual Symposium, Sharp Grossmont Hospital, San Diego, California; April 17, 2002.
35. "Emergency Management of Rhythm Disorders" -- Arrhythmic & Ischemic Emergencies: New Treatment Approaches - Dinner Symposium, Los Angeles, California; June 13, 2002.
36. Roundtable on Cultural Diversity Competency and Training -- Council of Residency Directors, ACEP Scientific Assembly, Seattle, Washington, October 7, 2002.
37. "Chemical Agent Overview" -- San Diego County Health and Human Services; January 8, 2003.
38. "Positional Asphyxia and Sudden Custody Death -- Separating Fact from Fiction" -- American Society for Law Enforcement Training, Ontario, California; January 10, 2003.
39. "Reperfusion for AMI" -- Western States Winter Conference on Emergency Medicine, Park City, Utah; January 22, 2003.
40. "ENT Emergencies" -- Western States Winter Conference on Emergency Medicine, Park City, Utah; January 23, 2003.
41. "Bioterrorism Update: Smallpox and Smallpox Vaccination" -- San Diego County Sheriff's Department, SWAT, and Special Enforcement Detail, San Diego, California; February 10, 2003.

42. "Academic Emergency Medicine and Research Opportunities" -- San Diego Health Information Association, San Diego, California; February 11, 2003.
43. "Bioterrorism Update: Smallpox and Smallpox Vaccination" -- San Diego County Sheriff's Department, ASTREA Division, San Diego, California; March 14, 2003.
44. "Positional Asphyxia" -- American Correctional Health Services Association Conference 2003, San Diego, California; September 25, 2003.
45. "Challenging ECG cases in the ED: Pearls and Pitfalls" -- Western States Winter Conference on Emergency Medicine, Park City, Utah; January 28, 2004.
46. "Positional Asphyxia" -- San Diego County Sheriff's Department -- Medical Division, San Diego, California; January 29, 2004.
47. "Improving Patient Flow and Reducing ED Crowding: Findings from 10 Hospitals" -- Urgent Matters, Web-based program, World Wide Web; July 1, 2004.
48. "After-the-Fire Grantee Summit" -- The San Diego Foundation, San Diego, California; October 21, 2004.
49. "Wireless Internet Information System for Medical Response to Disasters -- The WIISARD Project" -- San Diego Metropolitan Medical Strike Team, San Diego, California; November 17, 2004.
50. "Urgent Matters Study (input, throughput, output) of UCSD Medical Center's Emergency Department" -- San Diego Community Emergency Departments, San Diego, California; December 2, 2004.
51. "Best Practices of other Urgent Matters Hospitals" -- San Diego Community Emergency Departments, San Diego, California; December 2, 2004.
52. "Emergency Room Problems in San Diego: How Can We Improve Quality?" -- The San Diego Patient Safety Consortium Patient Safety Form, San Diego, California; December 16, 2004.
53. "Emergency Response Management for Efficiency of Care and Fiscal Consideration" -- American Correctional Health Services Association, Oakland, California; April 2, 2005.
54. "Promise and Pitfalls: Emergency Department Information Systems" -- Urgent Matters Regional Conferences, Atlanta, Georgia; October 14, 2005.
55. "Promise and Pitfalls: Emergency Department Information Systems" -- Urgent Matters Regional Conferences, Las Vegas, Nevada; October 28, 2005.
56. "Wireless Internet Information System for Medical Response to Disasters" -- Metropolitan Medical Response System Quarterly Meeting, San Diego, California; January 19, 2006.

57. "In-Custody Sudden Deaths" -- Florida Sheriffs Association One Day Symposium, Orlando, Florida; June 1, 2006.
58. "They Didn't Need to Shoot Him: Providing Effective Alternatives to Lethal Force" Plenary Panel -- The National Institute of Justice Conference, Washington D.C.; July 18, 2006.
59. "Use of Force: Sudden Death Myths and Excited Delirium" - The Commission of Accreditation for Law Enforcement Agencies (CALEA) Less Lethal Technology Working Group Meeting, Washington D.C.; September 10, 2006.
60. "Cardiac, Respiratory, and Metabolic Effects of EMD" - NIJ Steering Group Committee, US Department of Justice, Office of Justice Programs, Washington D.C.; October 30, 2006.
61. "IT Innovation in an Academic Emergency Department" - Institute for Healthcare Improvement Meeting, San Diego, California; November 2, 2006.
62. "Restraint Physiology: Separating Fact from Fiction" - Sudden Death, Excited Delirium and In-custody Death Conference, Las Vegas, Nevada; November 16, 2006.
63. "Use of Force and Sudden In-Custody Death" - Minnesota Dept of Public Safety -- Bureau of Criminal Apprehension, Minneapolis, Minnesota; April 30, 2007.
64. "Chlorine Gas Exposure and Chemical Terrorism" - San Diego County Metropolitan Medical Strike Team, San Diego, California; September 19, 2007.
65. "Power of Innovation: The Strategic Use of Technology to Improve the Patient Experience" -- CEO Rounds, UCSD Medical Center, San Diego, California; September 20, 2007.
66. "Tasers" -- San Diego County EMS/ED American Medical Response Field Care Audit, San Diego, California; September 26, 2007.
67. "ER Overcrowding;" Panelist -- ER Overcrowding Summit, San Diego, California; October 2, 2007.
68. "Restraints and Sudden Death" -- Sudden Death, Excited Delirium and In-Custody Death Conference, Las Vegas, Nevada; November 28, 2007.
69. "UCSD Emergency Medicine" -- DOM Clinical Service Chief's Meeting, San Diego, California; May 20, 2008.
70. "ED Crowding and Project Impact" -- UCSD Healthcare/Preuss School, San Diego, California; July 24, 2008.
71. "Restraint and Sudden Death" -- California/Nevada American Correctional Health Services Association -- Institute for Medical Quality, San Diego, California; September 18, 2008.

72. "UCSD Emergency Medicine and Community Outreach Efforts" – UCSD Leaders Team Meeting, San Diego, California; September 25, 2008.
73. "ED Clinic Project/Nurse Ratio Project" – San Diego's Annual Emergency Department Overcrowding Summit, San Diego, California; October 8, 2008.
74. "Excited Delirium Restraint and Sudden Death" – Sudden Death, Excited Delirium and In-Custody Death Conference, Las Vegas, Nevada; October 30, 2008.
75. "Safety Net Connect Update" – Hospital Association of San Diego and Imperial Counties, San Diego, California; November 13, 2008.
76. "Understanding Patient Demand in Emergency Department" - Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, San Diego, California; October 14, 2009.
77. "ED-Community Clinics Collaboration" - Annual San Diego County Emergency Department Overcrowding Summit, San Diego, California; October 14, 2009.
78. "Lessons Learned - Emergency Department Crowding" - Urgent Matters Learning Network II, sponsored by the Robert Wood Johnson Foundation and Agency for Healthcare Research and Quality, Philadelphia, Pennsylvania; October 23, 2009.
79. "Restraint Chair Safety and Related Sudden In-Custody Death Asphyxia Issues: A Review of the Literature" – Institute for the Prevention of In-Custody Deaths, Inc., Las Vegas, Nevada; November 12, 2009.
80. Coordination of Care: The Patient Centered Medical Home and the Role of Community Resources at University of California Healthcare Retreat - Transforming Health Care Delivery at UC, Oakland, California; February 22, 2010.
81. "Technologic Innovations in Emergency Department Intake" - Intermountain Institute for Health Care Delivery Research, Salt Lake City, Utah; February 24, 2010.
82. "Linking Frequent ED Users with Primary Care - A successful program in San Diego" to the Inland Quality Collaborative, Riverside, CA; Aug 18, 2010.
83. "The Impact and Future of SBIRT" – Screening, Brief Intervention, Referral to Treatment Conference, San Diego, CA; Sep 9, 2010.
84. "Beacon Collaborative and Health Reform" – Annual San Diego Organization of Healthcare Leaders Conference, San Diego, CA; Sep 10, 2010.
85. "San Diego Beacon Collaborative and Health IT Workforce" – HealthTECH Workforce Forum, San Diego, CA; Sep 17, 2010.
86. "San Diego Beacon Community Collaborative Update" – Hospital Associate of San Diego and Imperial Counties 2010 Annual Membership Meeting, San Diego, CA; Nov 11, 2010.

87. "Excited Delirium" – 5th Annual Sudden Death, Excited Delirium & In-Custody Death Conference, Las Vegas, NV; Nov 18, 2010.
88. "Healthcare IT: BEACON Community Collaborative" – UK Digital Economy Workshop, San Diego, CA; March 17, 2011.
89. "Health IT in an Era of Accountable Care: Update from the Beacon Communities" – Brookings Institute, Washington DC; May 17, 2011.
90. "Emergency Room Diversion/Health Information Exchange" – Health Care Community Network Quarterly Meeting, San Diego, CA; June 15, 2011.
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100. "Update on Restraint Physiology Research" – IPICD Excited Delirium and Sudden, In-custody Death Conference, Las Vegas, NV; November 2012.
101. "Federal Health Reform Initiatives and Emergency Medicine in San Diego" – David Brenner Chair Search Seminar, San Diego, CA; November 30, 2012.

102. "Health Information Technology: Federal and Local Perspectives with the San Diego Beacon Community" – UCSD Health Sciences Leadership Academy, San Diego, CA; Jan 2013.
103. "Information Exchange" - Health and Social Services National Health Policy Forum, San Diego, CA; Feb 20, 2013.
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105. Health Information Exchange: Promise, Practice, Prospects. Invited Participant. National Health Policy Forum, George Washington University, Washington DC, May 22, 2013.
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112. Geriatric Emergency Medicine. Gary and Mary West Foundation and Health Institute, San Diego, CA, November 10, 2016.
113. Healthy Aging and IT. UC Health Hackathon, San Diego, CA, March 4, 2017.
114. "Redefining Health: Living Healthy Longer" – UCSD Future of Care Event, Rancho Santa Fe, CA, May 2017.
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B

ORIGINAL ARTICLE

Weight Force During Prone Restraint and Respiratory Function

Theodore C. Chan, MD,* Tom Neuman, MD,*† Jack Clausen, MD,†
John Eisele, MD,‡ and Gary M. Vilke, MD*

Abstract: Prone maximal restraint position (PMRP, also known as hogtie or hobble) is often used by law enforcement and prehospital personnel on violent combative individuals in the field setting. Weight force is often applied to the restrained individual's back and torso during the restraint process. We sought to determine the effect of 25 and 50 lbs weight force on respiratory function in human subject volunteers placed in the PMRP. We performed a randomized, cross-over, controlled trial on 10 subjects placed in 4 positions for 5 minutes each: sitting, PRMP, PRMP with 25 lbs weight force (PMRP+25), and PRMP with 50 lbs weight force placed on the back (PMRP+50). We measure pulse oximetry, end-tidal CO₂ levels, and forced vital capacity (FVC) and forced expiratory volume in 1 second (FEV1). FVC and FEV1 were significantly lower in all restraint positions compared with sitting but not significantly different between restraint positions with and without weight force. Moreover, mean oxygen saturation levels were above 95% and mean end-tidal CO₂ levels were below 45 mm Hg for all positions. We conclude that PMRP with and without 25 and 50 lbs of weight force resulted in a restrictive pulmonary function pattern but no evidence of hypoxia or hypoventilation.

Key Words: restraint, weight force, respiratory function

(*Am J Forensic Med Pathol* 2004;25: 185-189)

Law enforcement and prehospital care personnel often confront violent, dangerous individuals who must be physically restrained to insure the safety of the individual, as well as those around them. A number of physical restraint tech-

niques have been developed to subdue and control such individuals in the field.¹⁻³ The prone maximal restraint position (PMRP, also known as hobble or hogtie) position has been used extensively by field personnel. This position places a subject prone with wrists handcuffed behind the back, ankles bound together, and wrists and ankles secured together by means of a strap or other device.

Because of reports of the sudden deaths of individuals placed in this restraint position, controversy has arisen regarding the PMRP.⁴⁻⁷ Some have argued the position adversely impacts respiratory function and places individuals at risk for a so-called "positional" or "restraint" asphyxiation by restricting chest and abdominal movement.^{5,8} We previously conducted a study which found that PMRP by itself resulted in a small restrictive pattern on spirometry but had no impact on oxygenation or ventilation in healthy subjects.

It has been suggested that additional weight force pressure placed on the back of individuals during the restraint process can impede chest and abdominal movement further. Some have argued that it is this additional pressure on the torso, along with the PMRP, that causes chest and abdominal constriction and respiratory compromise leading to asphyxiation.⁹ In this study, we sought to investigate the impact of weight force on the back on the respiratory function and physiology of individuals placed in PMRP.

METHODS

We conducted a randomized, cross-over, controlled trial at a University Medical Center pulmonary function laboratory. Ten volunteer male subjects between the ages of 18 and 45 years were recruited to participate in the study. Potential subjects were excluded if they were unable to be placed in PMRP. No exclusion was made on the basis of pulmonary or cardiovascular disease or function, or based on body size and weight.

Each subject was placed into 4 different positions: sitting, PMRP with no weight force, PMRP with 25 lbs of weight force on the back (PMRP+25), and PMRP with 50 lbs of weight force on the back (PMRP+50). Subjects were placed in these positions in random order. For the sitting

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position, the subject sat in a chair with feet flat on the floor and back upright against the back of the chair. In the PMRP without weight force, the subject was placed prone on their stomach with head turned to the side on a medical examination table. The subject's wrists were bound together behind the back by means of law enforcement handcuffs. The subject's ankles were bound together and drawn up near the wrists by means of a police restraining cuff device used by local law enforcement, known as the maximal restraint cuff. In PMRP+25, the subject was placed in PMRP and a 25-lb sandbag was placed on the back of the subject between the scapulas. In PMRP+50, the subject was placed in PMRP and a 40-lb sandbag was placed on the back of the subject between the scapulas (Fig. 1). Subjects remained in each position for 5 minutes. After each 5-minute period, the subject rested in the sitting position for 10 minutes before starting the next trial.

Spirometric pulmonary function testing was performed at 1 and 5 minutes into each position for every subject. Measurements of forced vital capacity (FVC) and forced

expiratory volume in 1 second (FEV1) were obtained using a Medgraphics Cardiopulmonary Diagnostic System (Medical Graphics Corporation, St. Paul, MN) in accordance with the American Thoracic Society's standards for reproducibility and acceptability.¹⁰ Raw spirometric data were converted to percent predicted (%predFVC and %predFEV1) for each subject to normalize for height, gender, age, and race as per standard practice.¹¹

Oxyhemoglobin percent saturation (SpO₂) was monitored using a pulse oximeter sensor placed on the index finger (Ohmeda Biox 3740 Pulse Oximeter, Datex-Ohmeda, Helsinki, Finland). Expired end-tidal CO₂ (etCO₂) levels were monitored by means of a quantitative CO₂ detector using a Medgraphics Cardiopulmonary Exercise System CPX/D, Medical Graphics Corporation, St. Paul, MN). SpO₂ and etCO₂ measurements were recorded every 30 seconds during the 5-minute period for each position.

Statistical analysis was performed using an analysis of variance for repeated measures, with position and time as factors. A probability value of less than 0.05 was considered statistically significant. Data analysis was performed by means of a computerized statistical software package software package (STATA 6.0).

Clinically, data were also analyzed as absolute values in comparison with normal values defined prior to the start of the study. Hypoxemia was defined as SpO₂ less than 95%. Hypercapnia was defined as etCO₂ levels greater than 45 mm Hg. Spirometric measurements were considered abnormal if they fell below 1.65 standard deviations of established predicted values. The research design and methods of this study were approved by our University Human Subjects Committee and institutional review board.

RESULTS

All 10 subjects recruited for this study completed each of the 4 position trials. Subjects ranged in age from 21 to 40 years, and body mass index ranged from 21.3 to 35.3 kg/m². There were no exclusions of any participant or subject data. At 1 minute into each position, mean %predFVC was lower for all restraint positions when compared with sitting: 101% [95% confidence interval (CI) 91.6%-110%] for sitting compared with 87.1% [CI 79.7%-94.6%] for PMRP, 84.7% [CI 76.9%-92.5%] for PMRP+25, and 84.2% [CI 75.5%-93.0%] for PMRP+50. However, there was no difference in mean %predFVC in the PMRP or PMRP with additional weight force of 25 or 50 lbs (Fig. 2). Similarly, mean %predFEV1 was lower for all restraint positions when compared with sitting: 98.2% [CI 89.6%-107%] for sitting compared with 83.4% [77.6%-89.2%] for PMRP, 81.0% [CI 73.5%-88.6%] for PMRP+25, and 80.1% [72.1%-88.1%] for PMRP+50. Again, there was no difference in mean %predFEV1 in the PMRP with and without additional weight force of 25 or 50 lbs (Fig. 3).

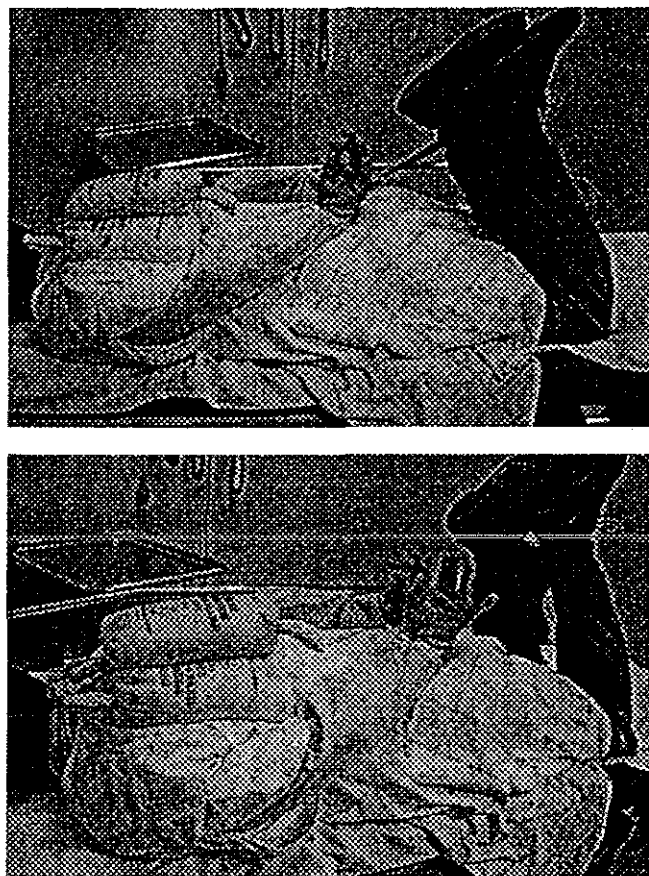


FIGURE 1. Top, Bottom, Subject placed in PMRP with weight force on back.

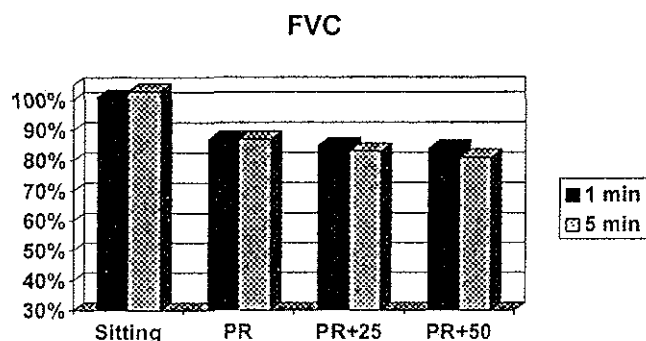


FIGURE 2. Mean %predFVC for subjects at 1 and 5 minutes into each position.

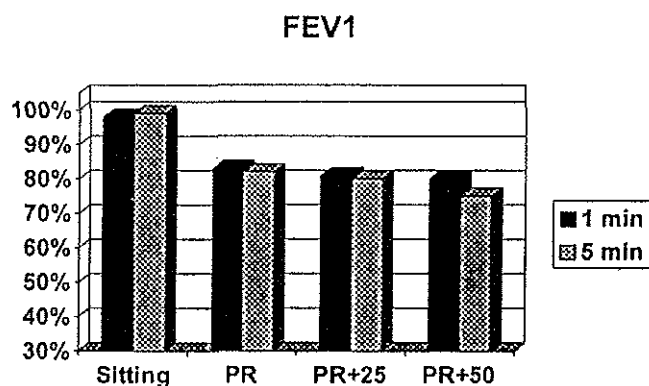


FIGURE 3. Mean %predFEV1 for subjects at 1 and 5 minutes into each position.

At 5 minutes into the position, mean %predFVC was significantly lower for all 3 PMRP position compared with sitting, but there was no difference between the restraint positions with and without weight force: 103% [CI 92.6%-112%] for sitting, 86.8% [CI 79.7%-93.8%] for PMRP, 82.5% [CI 74.0%-90.9%] for PMRP+25, and 80.5% [CI 72.5%-88.5%] for PMRP+50 (Fig. 2). Similar findings were seen for % predFEV1 at 5 minutes: 99.3% [CI 90.1%-108%] for sitting, 82.2% [CI 75.0%-88.9%] for PMRP, 79.5% [CI 70.9%-88.0%] for PMRP+25, and 75.0% [CI 66.6%-82.8%] for PRMP+50 (Fig. 3).

Clinically, mean SpO₂ levels remained above 95% and revealed no evidence of hypoxemia throughout the 5-minute trials for each position (Fig. 4). Similarly, etCO₂ levels remained below 45 mm Hg and revealed no evidence of hypercapnia throughout the 5-minute trails for each position (Fig. 5).

DISCUSSION

Although sudden deaths have clearly occurred in individuals placed in the hobble, hogtie, or PMRP, the cause of death and the actual role of body position remain controver-

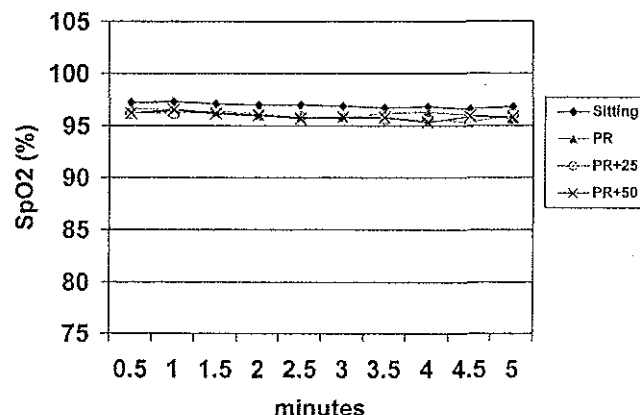


FIGURE 4. SpO₂ during each 5-minute restraint period.

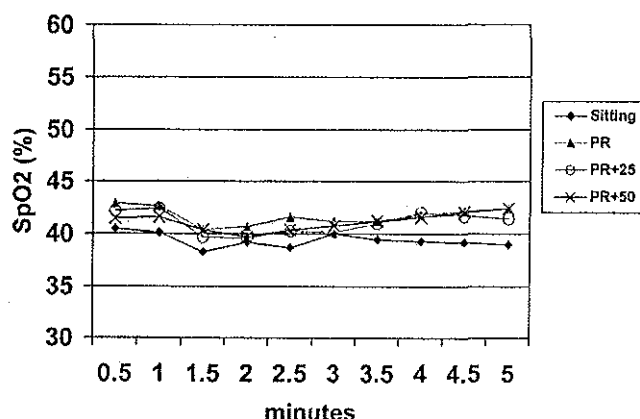


FIGURE 5. SpO₂ during each 5-minute restraint period

sial. Some have argued that the PMRP prevents adequate chest wall, abdominal, and diaphragmatic movement, leading to hypoventilatory respiratory compromise and risk for death from so-called positional asphyxia.¹² However, case reports and case series of the sudden deaths of restrained individuals do not clearly indicate a specific mechanism.⁴⁻⁷ Historical as well as autopsy evidence is often unrevealing as to a clear cause of death. Importantly, similar sudden deaths have been reported in patients who were not restrained in the PMRP, but simply in the prone, supine, lateral side, and even sitting positions.^{13,14} As a result, some have argued that factors such as drug intoxication, excited delirium, trauma, stress, and catecholamine hyperstimulation are more important causes of sudden death rather than asphyxiation from body position.^{15,16}

The theory of positional asphyxia as it relates to sudden deaths in restraint cases has been based primarily on the physiologic study of Reay et al,⁸ who found that healthy

individuals had a delayed recovery in oxygen saturation following mild exercise. However, this study was limited by the fact that a decrease in oxygen saturation was documented during mild exercise, in opposition to well-established exercise physiology work that has shown arterial oxygenation improves with exercise.¹⁷

We conducted a more comprehensive randomized physiologic study measuring arterial oxygenation as well as ventilation parameters, including spirometry and CO₂ levels. We found no evidence of desaturation or hypoxia during exercise or PMRP. More importantly, while there was a progressive restrictive pattern on spirometric measurements from sitting to supine to prone to PMRP positions, there was no evidence of hypoventilation or hypercapnia.¹⁸ Other studies have confirmed our spirometric and respiratory measures in relation to PMRP.¹⁹ Additionally, other investigators have not shown evidence of hypoxia or oxygen desaturation as a result of PMRP or restraint body position.^{20–22} As a result, many now argue that “the hog-tied prone position should be viewed as not producing significant physiologic respiratory compromise, and it does not produce any serious or life-threatening respiratory effects.”⁹

While body position by itself may not cause asphyxiation, others now argue that PMRP in combination with additional chest and abdominal compression during the restraint process could cause hypoventilatory respiratory compromise.⁹ Proponents of this “restraint asphyxia” theory (as opposed to “positional asphyxia”) argue that weight force often applied to the back of an individual restrained in the prone position during the restraint “take-down” process could potentially cause greater constriction of the torso and decrement in ventilatory function to the point of asphyxiation.²³

Deaths from the application of weight to the torso have been described in the medical literature.²³ The term *traumatic* or *mechanical asphyxiation* has been applied to cases in which extreme weight force was applied to individuals, such as when an automobile runs over the torso of an individual. However, in these cases, there is often pathologic evidence of chest trauma (pulmonary contusion, rib fractures) or increased intrathoracic pressure affecting venous return and cardiovascular function (plethoric facies, edema, and ruptured small blood vessels above the shoulders).²⁴

In this study, we sought to determine if additional weight force on the back of an individual in the PMRP resulted in any evidence of respiratory compromise or risk for asphyxiation. Similar to previous studies, we found a restrictive pulmonary function pattern with PMRP but no significant further detriment in spirometric measures of FVC and FEV1 with the addition of 25 and 50 lbs of weight force on the back. More importantly, we found no evidence of hypoxia, oxygen desaturation, hypercapnia, or CO₂ retention from hypoventilation in the PMRP with the additional weight force.

Our study has limitations. First, as this was a laboratory physiology study, we could not reproduce all conditions encountered in the field setting with such cases. In particular, we did not simulate trauma, struggle, drug intoxication, and other physiologic and psychologic stresses that commonly occur with individuals who are being restrained in the field setting.

Second, the amount of weights selected for this study may not reproduce the actual amount of weight force used on individuals during the restraint process. It is possible that heavier amounts of weights would have impacted respiratory function to a greater degree. Similar to traumatic or mechanical asphyxia cases, extreme amounts of weights could have resulted in significant chest wall trauma and marked elevations in intrathoracic pressure that could have impacted cardiovascular function. To our knowledge, this is the first laboratory investigation studying the effects of weight force during restraint. As a result, we chose weight amounts which we felt would approximate weight force used in the field setting, heavy enough to indicate any trends if respiratory function was impacted, but not so heavy as to potentially place our subjects at risk for injury.

CONCLUSION

We conducted a study on the impact of weight force placed on the back of individuals in the PMRP on pulmonary and respiratory function. We found that weight force of 25 and 50 lbs did not result in evidence of hypoxia or hypoventilatory respiratory compromise in our study subjects.

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July 24, 2017

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RE: Sexton, Allsyon (Est/Brett) v. Phillips, RN, et al
Docet No. 1:15-CV-0318RBK-AMD

Dear Mr. Walsh:

At your request, and pursuant to Federal Rule of Civil Procedure 26, below is a written summary of my opinions regarding the above named case. My opinions are based on my training, experience and research as a Professor and Chair of the Department of Emergency Medicine at the University of California San Diego School of Medicine and Health System. I have conducted numerous human research studies on the topic of restraint physiology that have been published in peer-reviewed medical journals and presented at national medical meetings and scientific assemblies. I am also a practicing emergency physician, board-certified in the specialty of emergency medicine, and a Fellow of the American College of Emergency Physicians and American Academy of Emergency Medicine.

In formulating my opinions regarding the specific issues of this case, I have relied upon my own scientific and clinical research on restraint physiology, a review of the current medical and scientific literature relevant to this case, and the specific materials you forwarded me regarding the above named case, including medical records of Cape Regional Medical Center; autopsy report of the State Medical Examiner; deposition transcripts of Sheila Phillips, Leah Lombardo, Kristina Wade, Jessica Parsons, Patricia Zaffiri, Shane Shaw, Keith Nielsen, Kurt Young, Anthony Rizzetta D.O., Joel Steinberg M.D., China Farlow, Robert Crane; answers to interrogatories on behalf of Sheila Phillips, Keith Nielson, Shane Shaw, Kurt Young; Cape Regional Medical Center restraint policies; records of Cape May prosecutor's office; photographs of scene; death certificate; photographs from the Cape Ma Medical Examiners; medical records of Doylestown Family Practice; Quest Diagnostic records; and expert reports of John Setaro MD, Ian Hood MD, Michael VanRooyen MD, Barbara Levin, Jeanine Penn, David Feinbloom MD, Bradley Sherman MD, Robert Coben MD, Daryl Fannery MD, Charles Dackis MD, William Turner MD, Linda Worten, Robert Attaran MD, Robert Perkel MD,

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David Frankel MD, and Stephen Factor, MD. If additional pertinent information is revealed and provided to me subsequent to this letter, my opinions may change.

Briefly, Mr. Brett Sexton was a 43-year-old man who was admitted to Cape Regional Medical Center on July 12, 2013 with a diagnosis of pancreatitis, alcoholism, alcohol withdrawal syndrome, and history of hypertriglyceridemia. During his hospital course, Mr. Sexton became increasingly agitated and confused, exhibiting signs and symptoms of severe alcohol withdrawal. Early on the morning of July 15, 2013, a security Code Grey was called because he became uncooperative and belligerent with hospital staff. Additional medications of haloperidol and lorazepam were administered parenterally. A struggle ensued with nursing and hospital security staff and Mr. Sexton was restrained in a prone position on a hospital gurney. Within a brief time, staff noted he was unresponsive and in cardiopulmonary arrest. Advanced resuscitative measures were initiated including intubation, defibrillation, and ACLS (advanced cardiac life support) medications. Despite these efforts, Mr. Sexton remained unresponsive and in arrest and was subsequently pronounced dead. On autopsy, the medical examiner attributed the cause of death to "Sudden cardiac arrest during physical struggle while being restrained, with acute necrotizing pancreatitis, dilated cardiomyopathy, chronic ethanol abuse, and obesity".

I have been asked to provide an opinion case as to whether the manner in which Mr. Sexton was restrained may have caused respiratory compromise and asphyxiation, or so-called positional, restraint or compression asphyxia that could have led to his subsequent demise. By way of background, positional or restraint asphyxia is a term that was initially used to describe the deaths of individuals who were found in body positions that compromised respiratory function. Most commonly, these cases involved individuals in whom their position led to obstruction of the upper airway (such as from extreme head-neck hyperflexion) and who were alcohol intoxicated (to the point of being unable to remove themselves from the lethal position).¹

In the late 1980s, the term positional asphyxia was then applied as a cause of death in reports of sudden deaths that occurred to persons who were being restrained while in custody. Proponents of this theory argued that individuals placed in the hobble position (hogtie, hobble or prone restraint position in which individuals were placed prone on their stomach with wrists handcuffed behind the back and ankles secured to the handcuffs) were unable to breathe because the position caused chest wall and abdominal restriction that prevented adequate expansion or ventilation of the lungs and subsequently led to asphyxiation.

There is little scientific evidence to support the notion that prone restraint and body position results in respiratory compromise or asphyxiation. The theory of positional asphyxia as applied to custody restraint was largely based on the work of Reay et al, who studied 10 healthy subjects after exercise and found delayed recovery of blood oxygen levels and heart rate in the hobble position.² We conducted a more comprehensive study

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investigating the effects of body position on respiratory function after exertion that was published in the *Annals of Emergency Medicine* and reviewed in another article published in the *American Journal of Forensic Medicine and Pathology*.^{3,4} In our study involving 15 human volunteers, we studied respiratory function in the sitting, supine (laying on the back), prone (laying on the stomach), and hobble position. While we found a slight progressive decrease in pulmonary function (the amount of air movement in the lungs), these changes were within normal range. Accordingly, we found no evidence of decreased blood oxygen levels or increased carbon dioxide levels (to suggest inadequate ventilation) in the hobble position. These findings have been confirmed by other independent investigators who found no significant decrease in blood oxygen levels in individuals placed in similar restraint positions.^{5,6}

As a result of this evidence, Dr. Reay, one of the chief proponents of the positional asphyxia theory with prone restraint, has written that “the hog-tied prone position should be viewed as not producing significant physiologic respiratory compromise, and it does not produce any serious or life-threatening respiratory effects”.⁷ Moreover, a recent, large epidemiologic study of over 1000 police restraint cases found no association between prone positioning and death or asphyxiation.^{8,9}

In Mr. Sexton’s case, he was restrained in a prone position, not the more restrictive hobble or hogtie position. In addition, he was also actively resisting, moving, and vocalizing while being restrained. Moreover, witness statements indicate he was breathing with his head turned to the side while restrained.

Hospital staff, including nursing and security staff, did use force to restrain Mr. Sexton. Some have argued that additional weight force over the torso during restraint can lead to compressive or mechanical asphyxia, placing the restrained individual at greater risk for respiratory compromise that can lead to asphyxiation. However, in Mr. Sexton’s case, the hospital staff restraining Mr. Sexton indicate they were primarily restraining his extremities and that Mr. Sexton was able to push himself up even against this force.

In addition, we have conducted two studies investigating the effect of weight force while restrained on human volunteers. In our initial study, we found no evidence of hypoxia (decrease in oxygen levels) or hypoventilation (increase in carbon dioxide levels) in human subjects on whom moderate amounts of weight were placed on their back in the prone restraint position.¹⁰ In our subsequent study, we placed up to 225 pounds of weight force on human subjects in the prone restraint position and found no life-threatening abnormalities in ventilation.¹¹ These results are consistent with other investigators who have conducted similar weight force studies on the prone restraint position and found no evidence of hypoxia to indicate risk for asphyxiation.¹²

Again, even if with the force applied to restrain Mr. Sexton in the prone position, he was noted to be actively resisting, moving, and vocalizing indicating he was not at risk for respiratory compromise to the point of asphyxiation. In addition, there was no evidence

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on autopsy that any compressive force resulted in significant traumatic pulmonary or cardiac injuries or obstruction in venous return as a result of compressive asphyxiation.

In conclusion, it is my opinion that Mr. Sexton's death was not caused by positional, restraint or compression asphyxiation as a result of the manner in which he was restrained by hospital staff.

In accordance with the Rules of Civil Procedure, my compensation for services rendered in association with this case are \$500/hour, including travel time and expenses. Prior cases in which I have provided testimony over the past four years are: Smith v. Gorman, Minnesota, 2013; Blondin v. City of Snohomish Police Department, Seattle, Washington, 2014; Hesterberg v. National Park Service, San Francisco, California, 2014; Flannery v City of Indianapolis, Indiana, 2014; Garlik v. Kern County, 2015; Russell v. City of Los Angeles, 2015; Abrego v. City of Los Angeles, 2016; Mears v. City of Los Angeles, 2017.

Should you have any further questions, please do not hesitate to contact me at any time.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Theodore C. Chan', with a stylized flourish at the end.

Theodore C. Chan, MD
Professor and Chair
Department of Emergency Medicine
University of California San Diego

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References

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1 UNITED STATES DISTRICT COURT
2 DISTRICT OF NEW JERSEY
3 CAMDEN VICINAGE
HONORABLE ROBERT B. KUGLER

4 CIVIL ACTION NO. 1:15-cv-03181-RBK-AMD

5 ALLYSON SEXTON, general administratrix and
6 administratrix ad prosequendum of the Estate of Brett
J. Sexton, and ALLYSON SEXTON, individually,
7 Plaintiff,
8 vs.
9 ANTHONY J. RIZZETTA, D.O.; JOEL S. STEINBERG, M.D.;
10 LEAH LOMBARDO, R.N.; JESSICA PARSON, NURSING
ASSISTANT/NURSE AIDE; KRISTINA RATTI, R.N.; SHEILA
11 PHILLIPS, R.N.; PATRICIA ZAFFIRI, R.N.; KEITH
NEILSON; SHANE SHAW; KURT YOUNG; CAPE REGIONAL
12 MEDICAL CENTER, INC.; CAPE PHYSICIANS ASSOCIATES,
P.A.; JOHN DOE # 1-15 (fictitious); JANE ROE # 1-15
13 (fictitious); and JOHN DOE EMPLOYERS # 1-15
(fictitious), individually, jointly, severally,
and/or in the alternative,
14 Defendants.
15
16 November 17, 2017
17
18 Oral sworn teleconference deposition of
THEODORE C. CHAN, M.D., 5521 Brentwood Court, San
19 Diego, California 92130, taken in the offices of
20 Parker McCay, 9000 Midlantic Drive, Mt. Laurel, New
Jersey 08054, before Kathleen Tanger Crescenzo,
21 Certified Court Reporter, Registered Merit Reporter,
and Notary Public of the State of New Jersey, on the
22 above date, commencing at 11:35 a.m., there being
23 present:
24
25

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1 (By agreement of counsel, the signing, sealing and
2 certification of the deposition were waived, and all
3 objections, except as to the form of the questions,
4 were reserved to the time of trial.)
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6
7
8

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1 THEODORE C. CHAN, M.D.,
2 having been duly sworn, was examined
3 and testified as follows:
4 BY MR. BERGER:
5 Q. Can you hear me all right, Dr.
6 Chan?
7 A. Yes.
8 Q. Good morning. My name is Michael
9 Berger. I represent the plaintiffs in
10 this matter. I'm here to ask you some
11 questions about opinions that you've
12 given in this case. I don't know if
13 you've testified in New Jersey before,
14 but let me go over some brief
15 instructions.
16 If you don't understand the
17 question I ask, please tell me, I'll
18 either repeat it or rephrase it. Do you
19 understand that instruction?
20 A. Yes.
21 Q. If, at any time, there's an
22 objection to a question, don't answer the
23 question, let the lawyers object, discuss
24 the question, and then follow the
25 instruction of Mr. Walsh. Do you

1 understand that instruction?
2 A. Yes.
3 Q. Are you experiencing a little bit
4 of a delay?
5 A. I don't think we're experiencing
6 delay on our end. It sounds like you're
7 experiencing some delay on your end.
8 Q. Actually, we are. We'll work
9 around that. So if, at any time, you
10 need to take a break, tell us, and we'll
11 accommodate you, and that applies to our
12 side, as well.
13 If, at any time, you don't
14 remember the question or the answer to
15 the question, and that's a truthful
16 answer, just tell me that you don't
17 remember. Do you understand that
18 instruction?
19 A. Yes.
20 Q. If, at any time, you're giving an
21 estimate as to your gist of discussions
22 or testimony, just tell us that's what
23 the qualifier is for that type of answer.
24 Do you understand that instruction?
25 A. Yes.

1 Q. Do you have any questions before
2 we begin?
3 A. No. Well, I guess one question.
4 Am I billing you or Mr. Walsh for this
5 deposition?
6 MR. WALSH: You can send me
7 the bill, and we'll deal with that.
8 THE WITNESS: Okay.
9 BY MR. BERGER:
10 Q. Well, speaking of billing, what
11 do you charge?
12 A. And you're --
13 Q. Go ahead.
14 A. It's five hundred dollars an
15 hour.
16 Q. All right. And what do you
17 charge for your courtroom testimony?
18 A. The same.
19 Q. And when you travel, do you
20 charge five hundred dollars per hour to
21 travel?
22 A. It depends on how far, whether
23 it's a half a day or within an hour drive
24 of San Diego. It just depends on where
25 I'm traveling to.

1 Q. In what states have you served as
2 an expert witness?
3 A. I don't recall all the states off
4 the top of my head, but I know for sure
5 California, Nevada, Arizona, Ohio, I
6 believe, and those are off the top of my
7 head. I think there are probably others,
8 but I just can't recall.
9 Q. I see from your report that
10 you've also served as an expert witness
11 in Indiana, is that true?
12 A. Do you have a copy of the report?
13 I have no reason to doubt that.
14 Q. It appears that the case was
15 called Flannery versus City of
16 Indianapolis. Does that refresh your
17 memory?
18 A. Yes.
19 Q. Also, in your report, you cite a
20 case called Smith versus Gorman in the
21 State of Minnesota. Did you serve as an
22 expert in that case, as well?
23 A. Yes. And Washington State, as
24 well.
25 Q. All right. And have you served

1 as an expert witness before in New
2 Jersey?

3 A. I'd have to look back at my
4 records. I don't recall. The list in my
5 report I think is the last four years.

6 Q. All right. You have worked with
7 Mr. Walsh in the past, is that true?

8 A. Yes, I believe so.

9 Q. Have you worked with Mr. Walsh on
10 more than one occasion in the past before
11 this case?

12 A. I think it was one occasion, but
13 I have to look back at my records to see.

14 Q. Did you travel to New Jersey for
15 that case, Mr. Walsh's case?

16 A. No. No. I don't believe I did.

17 Q. In attempting to refresh your
18 memory about states where you've served
19 as an expert witness, can you itemize any
20 other states?

21 A. Without my records in front of
22 me, it would be difficult to do. I'm
23 sure there may be some other states. I
24 think Pennsylvania. Now that I think
25 about it, I might have provided expert

10

1 consultation there, but I can't recall
2 off the top of my head, but I would
3 suspect that there were other states.

4 Q. What records would you review to
5 determine what other states in which
6 you've served as an expert witness?

7 A. Well, I keep a listing on a
8 computer file.

9 Q. All right. I'll make a request
10 that you provide that list to Mr. Walsh
11 and that he, in turn, will send that list
12 to me. Is that agreeable?

13 A. Okay.

14 Q. When you have served as an expert
15 witness, have you ever represented, as an
16 expert, a plaintiff in a case?

17 A. Yes.

18 Q. And can you tell me how many
19 times you've done that?

20 A. I can't recall. It's maybe four
21 or five times, and that would be an
22 estimate.

23 Q. All right. And how many cases
24 have you served as an expert witness over
25 the years?

1 A. Now, I guess as an expert
2 witness, are you saying I testified or
3 conducted a deposition, or as a
4 consultant, it never got to deposition
5 and testimony -- you know, testifying in
6 court, I guess --

7 Q. Good question.

8 A. I don't quite --

9 Q. The question deals with how many
10 times overall, including consultations,
11 expert reports, deposition testimony, and
12 trial testimony.

13 A. Okay, so any time I've been
14 retained, is that fair to say?

15 Q. Yes.

16 A. It's probably -- again, this
17 would be approximate, maybe thirty,
18 thirty-five times, something like that.

19 Q. All right. When did you first
20 begin as an expert witness?

21 A. So, again, assuming you're saying
22 expert witness by that sort of larger
23 group of activities that you described, I
24 would say -- probably as soon as I --
25 when I finished residency, about '97,

12

1 maybe? 1996, '97.

2 Q. Was that first case the case
3 against San Diego?

4 A. I don't believe so.

5 Q. What was your first case in which
6 you served as an expert witness?

7 A. Again, without my records in
8 front of me, I believe there was a case
9 in Nevada that -- you know what, I think
10 I forgot to mention Oregon, but there was
11 a case in Nevada or Oregon that, as I
12 recall, as one of the early cases. I'm
13 not sure exactly the first case. I
14 suspected it was, but without my records
15 in front of me --

16 Q. What type of --

17 A. -- I can't be sure, but --

18 Q. I didn't mean to interrupt you.
19 I'm sorry, I thought you were finished,
20 but I'll try to do a better job on that.

21 What type of case was your first
22 case as an expert?

23 A. As I recall it -- sorry, my
24 apologies. I believe it was a case of
25 law enforcement engagement with an

1 individual, and there was a question of
 2 what's known as positional asphyxia,
 3 whether that played a role in the death
 4 of the individual.
 5 Q. All right. Of the approximately
 6 thirty-five cases in which you have
 7 served as an expert witness, how many of
 8 those cases involved cases where you were
 9 an expert on behalf of law enforcement?
 10 A. I would estimate maybe seventy
 11 percent.
 12 Q. All right. When you have been --
 13 A. That's an estimate.
 14 Q. All right. When you've been on
 15 the side of the defense, what other types
 16 of cases have you served as an expert
 17 witness for?
 18 A. Well, I've -- you know, I've had
 19 some medical malpractice cases that I've
 20 served on the defense for that didn't
 21 involve law enforcement. I've had cases
 22 where I've served on the defense for EMS
 23 agencies, prehospital agencies in the
 24 past, as well.
 25 Q. When you served on behalf of law

14
 1 enforcement, have those cases all been
 2 cases where you've served for the
 3 defense?
 4 A. So when I've been retained by law
 5 enforcement, has it always been on the
 6 defense?
 7 Q. That's the question.
 8 A. I believe -- that's a good
 9 question. I mean, I guess the question
 10 is -- I would say the majority of the
 11 cases, but -- if you're talking about in
 12 civil cases, but if you're talking about
 13 in criminal cases, I've been called as a
 14 fact witness, and I'm not sure I've been
 15 called by law enforcement or the DA's
 16 Office or the Prosecutor's Office. I
 17 guess I'm not quite sure about your
 18 question.
 19 Q. Yeah. My question really deals
 20 with your service as an expert witness.
 21 How many of those cases --
 22 A. Okay.
 23 Q. -- for law enforcement, did you
 24 serve as a defense expert witness?
 25 A. Can you repeat that question

15
 1 again? I'm sorry.
 2 MR. BERGER: Can you read
 3 that back, Kathy?
 4 (The reporter read back the
 5 following question: "My question
 6 really deals with your service as an
 7 expert witness. How many of those
 8 cases for law enforcement, did you
 9 serve as a defense expert
 10 witness?")
 11 THE WITNESS: That involved
 12 law enforcement or where I was retained
 13 by law enforcement?
 14 BY MR. BERGER:
 15 Q. Retained by law enforcement.
 16 A. So I would say probably all of
 17 them. I don't think I've been retained
 18 by law enforcement as a plaintiff's
 19 expert.
 20 Q. Of the four cases or so where you
 21 have served on behalf of the plaintiff,
 22 what types of cases were those?
 23 A. Those were -- some were medical
 24 malpractice cases, some were sudden in-
 25 custody death cases.

16
 1 Q. Could you describe when you
 2 served as an expert on behalf of the
 3 plaintiff, what type of sudden death in-
 4 custody cases were those?
 5 A. Well, you know, I can't recall
 6 the specifics. I think, you know,
 7 attorneys have contacted me and retained
 8 me for opinions on individuals who died
 9 suddenly in custody, and I can't recall
 10 the specific details of the cases of
 11 where the plaintiffs have contacted me
 12 and I provided an opinion. They may have
 13 involved restraint. You know, I just
 14 can't recall the details.
 15 Q. All right. Have you provided any
 16 opinions where you have said that law
 17 enforcement has caused an injury or a
 18 death during restraint of an individual?
 19 A. I have provided opinions to
 20 plaintiffs where I have -- I'm concerned
 21 about the amount of trauma that has
 22 occurred on an individual. This was a
 23 number of years ago, so I can't recall
 24 the specifics of what I said, but I have
 25 provided that opinion before.

1 Q. All right. Well, trauma is a
2 little bit different than restraint.
3 Have you ever provided an opinion on
4 behalf of a plaintiff where you have said
5 that law enforcement has negligently or
6 carelessly restrained an individual?
7 A. Well, I'm not a police practices
8 expert, so I don't provide opinion that
9 they've been negligent. I have provided
10 opinions that, you know, struggle
11 restraint may have likely resulted in
12 these injuries when I review cases, but I
13 don't make an opinion as to whether, you
14 know, certain police practice was, you
15 know, negligent or not.
16 Q. Fair enough. In the last fifteen
17 years, have you served as an expert
18 witness on behalf of any plaintiff
19 involving restraint?
20 A. I'd have to look back at my
21 records as to when -- these cases
22 occurred a number of years ago. I don't
23 know if it was within the last fifteen
24 years or beyond that.
25 Q. Would it be fair to say that

18

1 during the last fifteen years, most of
2 your work has been on behalf of defense
3 in cases involving restraint?
4 A. Yes.
5 Q. Could you estimate that more than
6 ninety-five percent of your cases in the
7 last fifteen years have been on behalf of
8 defense in cases involving restraint?
9 A. I'd have to look back at my
10 records. You know, I just have to look
11 back in the records. I'd say it's, you
12 know, the large majority, but I'm not
13 sure it's ninety-five percent.
14 Q. All right. Would your list
15 indicate -- that is, your list of cases,
16 would that indicate where you've served
17 on behalf of defense or the plaintiff?
18 A. I don't really track -- I just
19 have the listing of the cases.
20 Q. Can you identify --
21 A. They usually have, you know, a --
22 Q. Go ahead, I'm sorry.
23 A. Go ahead, I'm sorry.
24 Q. You go.
25 A. No, I was just going to say --

1 you know, you guys usually have us
2 destroy all the records after the case is
3 done, so I just keep a listing of the
4 cases, but that's about it.
5 Q. That would be ninety percent of
6 the defense lawyers, that is.
7 MR. WALSH: Now, now.
8 (Discussion off the record.)
9 BY MR. BERGER:
10 Q. How many times have you testified
11 in trial?
12 A. I think I've gone to trial maybe
13 ten to fifteen times. That's, again, an
14 approximate number.
15 Q. And in those ten to fifteen times
16 that you've gone to trial, have you
17 always testified on behalf of the
18 defense?
19 A. No.
20 Q. How many times have you testified
21 on behalf of the plaintiff?
22 A. I think it's one or two times.
23 Q. Were those medical malpractice
24 cases?
25 A. At least one of them was, as I

20

1 can recall.
2 Q. What was the other case?
3 A. There -- as an expert or a fact
4 witness, because there were fact
5 witnesses -- there was also a fact
6 witness case.
7 Q. I'm just talking about expert at
8 this time.
9 A. Okay. So then it would be the
10 one malpractice, medical malpractice
11 case.
12 Q. How many times have you given
13 deposition testimony?
14 A. Again, this would be another
15 approximate guess -- maybe twenty-five
16 times. Twenty, twenty-five times.
17 Q. I've asked you questions about
18 restraint. How many of the cases have
19 you taken a defense case involving
20 positional asphyxia?
21 A. Again, these are without my files
22 in front of me, or -- I'd probably say
23 twenty times, maybe more. You said
24 positional asphyxia, is that right?
25 Q. I did.

1 A. (Witness nods head in the
2 affirmative.)

3 Q. Of the number of cases where
4 you've served as a defense expert, how
5 many of those cases have involved death
6 of the plaintiff?

7 A. I would say most, but not all
8 cases.

9 Q. What other injury in addition to
10 death have you served as an expert
11 witness on behalf of the defense?

12 A. Well, significant neurologic
13 disability of individuals who lived. I'd
14 say that's probably the biggest for
15 people who survived.

16 Q. Neurologic disability would be
17 brain damage?

18 A. Yes.

19 Q. In those cases, you served as a
20 defense expert for defendants where the
21 allegation was brain damage was caused by
22 some type of restraint, is that right?

23 A. I would say that I served as an
24 expert for an engagement of law
25 enforcement or prehospital personnel that

1 but they may not call me to testify.

2 Q. All right. Can you identify any
3 cases where you've determined that an
4 individual died as a result of positional
5 asphyxia?

6 A. I mean, again, I don't have --
7 you know, this is many years ago, and I
8 don't recall exactly the details, but I'm
9 pretty sure I've told attorneys before, I
10 said, well, this looks like, you know, it
11 could have been positional asphyxia.

12 Q. What markers would indicate that
13 an individual died as a result of
14 positional asphyxia?

15 A. Well, I think what you'd have
16 to -- you know, when you look at the
17 history of positional asphyxia, you know,
18 these deaths were really described in the
19 literature of individuals who were, you
20 know -- with, you know, significant
21 respiratory depression because of
22 whatever reason, usually because of
23 alcohol, and were found in positions that
24 they looked like they obstructed their
25 upper airway or would have had some

22
1 resulted in a cardiac arrest in which the
2 individual survived but had subsequent
3 sequelae from that cardiac arrest,
4 including brain damage.

5 Q. Have you ever given an opinion
6 that an individual died as a result of
7 positional asphyxia?

8 A. Well -- so I would say, I guess
9 opinion is -- have I given an opinion to
10 an attorney to say this case, you know,
11 has some markers that would be
12 concerning? The answer would be yes.
13 I'm not sure I've testified, you know, in
14 trial as to that, because usually then
15 it's up to the lawyers whether they call
16 me or not.

17 Q. All right. In other words, as
18 I'm understanding that, you've given an
19 opinion to defense lawyers that there was
20 some concerning issues of positional
21 asphyxia, and they've chosen not to
22 retain you in those cases, is that right?

23 A. Well, they probably retained me,
24 because I don't usually review any
25 documents until I've been retained, so --

24
1 difficulty getting out of that position
2 because they were so depressed from the
3 mental status aspect, usually by alcohol.

4 So, you know, again, sometimes
5 those cases have been brought to me from
6 various attorneys, and I say, yeah, this
7 could be positional asphyxia.

8 Q. How do you define an obstruction
9 of the upper airway?

10 A. Well, if you look at the
11 literature again on positional asphyxia,
12 it's individuals who were either
13 generally hyperextended or hyperflexed
14 their neck and would not get out of those
15 positions and would be -- and it looked
16 like they obstructed their upper airway
17 from that standpoint.

18 Q. How would you define hyperflexion
19 of the upper airway or neck? What does
20 that look like?

21 A. Well, probably not the upper
22 airway, but of the neck. Either the neck
23 is hyperextended or hyperflexed in these
24 cases that have been described in the
25 literature. It's -- you know, either the

1 neck is very far back, you know, extended
2 backwards or flexed forward.

3 Q. How does flexing one's neck
4 backwards obstruct the airway?

5 A. Again, if you look at the
6 literature on positional asphyxia,
7 depending on how the neck is -- I think
8 most of these cases were actually
9 described as hyperflexed. There is some
10 suggestion that when they are -- when
11 individuals are so intoxicated that they
12 won't get out of a certain position on
13 their own, the neck can flop forward, and
14 in theory, cause an obstruction.

15 If they're hyperextended, perhaps
16 their tongue drops back or their
17 epiglottis drops back and obstructs their
18 airway, but this is the traditional -- or
19 not traditional, but this is the historic
20 definition of what was described in the
21 cases of positional asphyxia.

22 Q. Of the literature that you're
23 talking about, is that your literature or
24 somebody else's literature?

25 A. That is somebody else's

1 said, okay, we're seeing the sudden
2 deaths in custody of people who are
3 restrained, primarily in the hogtie
4 position or prone, you know, maximal
5 restraint position. There's this guy who
6 says, oh, there's positional asphyxia
7 where we're finding these people who died
8 but not in restraint, maybe that is
9 what's happening with these individuals,
10 but nobody had really looked at the
11 physiology of restraint, and when you
12 look at the physiology of restraint
13 compared to those original definitions of
14 positional asphyxia, they're very
15 different. So I don't -- you know, in
16 that -- some of that research has been
17 done by our group, as well as other
18 groups around the world have really shown
19 that the idea of applying positional
20 asphyxia to these restraint deaths, it
21 doesn't make sense from a physiologic
22 standpoint.

23 Q. I believe that in your report,
24 you're citing your own literature, is
25 that right?

26

28

1 literature.

2 Q. Who would that be?

3 A. I think it's Bell, B-E-L-L,
4 described some thirty cases out of
5 Florida.

6 Q. Do you accept the theory that
7 hyperflexion or hyperextension of the
8 neck can cause an obstruction of the
9 upper airway when a patient is
10 restrained?

11 A. I have no issue with how these
12 thirty cases that really coined the term
13 positional asphyxia were defined. None
14 of these cases involved restraint.

15 Q. In cases involving restraint, do
16 you accept the position that restraint
17 can cause positional asphyxia?

18 A. No.

19 Q. Why not?

20 A. Well, as it's been conventionally
21 or -- postulated in terms of the idea of
22 applying the idea of positional asphyxia
23 to restraint, what individuals did was --
24 or what pathologists and people who were
25 interested in this topic did was, they

1 A. I cite some of our own
2 literature, as well as literature of
3 other groups, who have studied this
4 issue.

5 Q. So is it accurate to say that you
6 do not believe that restraint can cause
7 an individual to suffer death from lack
8 of oxygen? True?

9 A. Well, I think you're being overly
10 broad here, right? So just to parse this
11 down a bit, right, what I'm talking about
12 is prone restraint, and the idea that
13 prone restraint causes asphyxiation or
14 respiratory compromise to the point of
15 asphyxiation.

16 Now, there can be, of course,
17 restraint where somebody basically covers
18 up the upper airway and obstructs the
19 upper airway. You know, I have no issue
20 with that, if somebody, you know, when
21 they're restrained covers their mouth or
22 in the restraint process obstructs their
23 upper airway. This is more to the idea
24 as has been described of, you know,
25 positional asphyxia or restraint asphyxia

1 as it applies to prone restraint.

2 Q. All right. So would you agree if
3 there is force applied when the patient
4 is on his chest, that that can cause
5 positional asphyxia?

6 MR. KOERNIG: Objection to
7 the form.

8 MR. WALSH: I'll object to
9 the form, as well.

10 THE WITNESS: So, again,
11 we've studied weight force on
12 individuals. We see no indication that
13 weight force in and of itself would cause
14 respiratory compromise to the point of
15 asphyxiation. Now, of course, the caveat
16 to this is at some point, right, there's
17 a certain amount of weight where you
18 simply crush somebody. Whether they die
19 because of asphyxiation or they die
20 because of other injuries is unclear, but
21 we have studied weight force up to two
22 hundred and twenty-five pounds on
23 individuals and looked at their
24 respiratory physiology and find no
25 evidence of significant hypoventilation.

30

1 But, again, obviously, at a certain
2 amount of weight, you crush somebody.

3 Q. With respect to the two hundred
4 and twenty-five pound weight study, would
5 you concede that there was some
6 limitations to that study?

7 A. There are limitations to every
8 study that is done when you're measuring
9 physiology. I concede that.

10 Q. Yeah. What were the limitations
11 to that study?

12 A. Well, if -- that is -- that's a
13 different thing. I'm not having the
14 study right in front of me, you know -- I
15 think, you know, any time you do studies
16 in the laboratory setting, you can't
17 obviously reproduce everything that
18 happens in the field setting, but we
19 believe that what we're looking at is
20 understanding the physiology of what
21 happens to individuals, looking at weight
22 force, looking at their oxygen
23 consumption with exertion and that sort
24 of thing.

25 Q. Wait a second. In that two

1 hundred and twenty-five pound weight

2 study, was there any exertion?

3 A. Well, remember, there's a couple
4 phases to that study, one of which looked
5 at respiratory function or ventilatory
6 function with weight force, and the other
7 which then looked at when somebody's
8 exerting themselves in a prone maximal
9 restraint, how much oxygen they are
10 consuming, so there are a couple
11 different phases to that study.

12 Q. In that second phase of the
13 study, how long was there an exertion
14 measured?

15 A. I can't recall. It was brief. I
16 think it was a minute or so, and, again,
17 what we're measuring with that is looking
18 at oxygen consumption during that time.

19 Q. Is it your opinion that the lab
20 study where weight is placed on your --
21 I'm sorry, Doctor -- is it your opinion
22 that where weight is put on subjects, and
23 they exert themselves for one minute, is
24 the same as a real-life situation on the
25 street, so to speak?

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1 A. So, again, I think we've said
2 this in our limitations. You know, you
3 cannot replicate every field condition in
4 the laboratory setting. What you're
5 doing in a laboratory setting is
6 understanding the basic physiology of
7 what is happening when an individual has
8 weight force on them, when they're
9 exerting themselves against restraint.
10 So I think it's important to understand
11 that, of course, we can't replace --
12 reproduce every condition, whether, you
13 know, an individual has cocaine on board
14 or that sort of thing, but we can
15 understand what's happening in the
16 general physiology, in basic respiratory
17 physiology with different elements placed
18 on them.

19 Q. What you really understand about
20 respiratory physiology would be the
21 respiratory physiology of healthy
22 individuals, is that true?

23 A. Well, I think in our first -- I
24 would say we had restrictions to limit
25 our study subjects to healthy individuals

1 in our first few studies because of
 2 concerns of our Human Subjects Committee.
 3 Our subsequent studies have sort of
 4 opened it up so that we've had
 5 individuals with different kind of
 6 conditions, asthma, in our other studies,
 7 for example, and obesity, so --
 8 Q. Well, let's start with the first
 9 study. That was a 2004 study, is that
 10 true? Weight force?
 11 A. Well, with what -- our really
 12 first study was probably '96.
 13 Q. But that wasn't a weight study,
 14 was it?
 15 A. That was not a weight study.
 16 Q. Okay. Let's just talk about the
 17 weight studies since we're on that topic.
 18 Would you agree that there were only ten
 19 subjects in that weight study?
 20 A. Well, again, which study are we
 21 talking about?
 22 Q. Weight force during prone
 23 restraint, respiratory function, 2004.
 24 A. 2004 -- is that the copy? You
 25 know, I have to look at it. What was the

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1 journal?
 2 Q. We'll get that for you. American
 3 Journal of Forensic Medicine and
 4 Pathology.
 5 A. Okay, yes, I think I have the
 6 study in front of me.
 7 Q. Is it true that there were
 8 only --
 9 A. Your question was --
 10 Q. I'm sorry, I didn't mean to
 11 interrupt you. My question, is it true
 12 that there were only ten subjects in that
 13 study?
 14 A. Yes.
 15 Q. Is it true that the study was
 16 performed in a lab?
 17 A. It was conducted in a pulmonary
 18 function laboratory, yes.
 19 Q. Is it true that this study could
 20 not account for all possible
 21 circumstances or conditions that might
 22 occur in a field setting?
 23 A. Yes, and that's the case probably
 24 for all lab -- clinical lab studies.
 25 Q. That would be true of all of your

1 clinical lab studies, true?
 2 A. Yes.
 3 Q. Is it true that the subjects in
 4 this study were only placed on medical
 5 examination tables?
 6 A. I believe it was a medical
 7 examination table.
 8 Q. Is it true that the study
 9 included only subjects under the age of
 10 forty?
 11 A. I'm trying to remember the exact
 12 -- I think we limited it to forty-five,
 13 but I can't recall specifically without
 14 reading every detail of the study right
 15 now.
 16 Q. Why would you limit it to only
 17 age forty-five?
 18 A. You know, this study was done a
 19 number of years ago, and it's possible
 20 our Human Subjects Committee wanted to
 21 limit the age range. I don't recall
 22 specifically.
 23 Q. All right. If you look at page
 24 186 of the study, it says, quote,
 25 Subjects ranged in age from twenty-one to

35

1 forty. Do you see that?
 2 A. Right. That may have been the
 3 actual -- the actual subjects who came
 4 forward. Again, if you look at the
 5 methods, ten male volunteers between the
 6 ages of eighteen and forty-five were
 7 recruited, so we may have had an age
 8 range in the recruitment, I just don't
 9 recall specifically.
 10 Q. Would it be true that you --
 11 A. But in terms of who came
 12 forward -- let me finish.
 13 Q. Of course.
 14 A. But in terms of who came forward
 15 to volunteer for the study, that was the
 16 age range.
 17 Q. All right. So the subjects you
 18 selected were from age twenty-one to
 19 forty, is that true?
 20 A. Well, I would say the subjects
 21 who volunteered for the study were in
 22 that age range. I wouldn't say that we
 23 selected, you know, specifically for that
 24 age range.
 25 Q. Were there any subjects which you

1 excluded from the study?
 2 A. I have to look through. I don't
 3 recall if we excluded anybody in this
 4 study.
 5 Q. You had a body mass index ranging
 6 from 21.3 to 35.3. Was there a body mass
 7 limit as part of that study?
 8 A. I don't believe so.
 9 Q. Did any of your studies have body
 10 mass limits?
 11 A. Our initial study had a body mass
 12 limit.
 13 Q. Why did you have a body mass
 14 limit in the initial study?
 15 A. Well, again, when we started
 16 looking into this issue, there was
 17 essentially only one other study
 18 physiologically that suggested there
 19 might have been a problem with prone
 20 restraint, so when we went to our Human
 21 Subjects Committee, they said you have to
 22 look at individuals who are healthy first
 23 to see what's really going on before
 24 performing these studies on other types
 25 of individuals, obese individuals, that

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1 sort of thing, first. So in our very
 2 first study, we did limit it to
 3 individuals who had no history of
 4 pulmonary or cardiac disease and were a
 5 body mass index less than thirty.
 6 Q. In the 2004 study, is it true
 7 that the study did not simulate
 8 individuals who were struggling while
 9 restrained?
 10 A. We did not ask individuals to
 11 struggle against restraint specifically.
 12 Q. When you talk about exertion for
 13 one minute during this study, what type
 14 of exertion were you documenting?
 15 A. That's a different study. So
 16 when we talked about that a few minutes
 17 ago, that was a different study.
 18 Q. All right, let's stay with this
 19 study. Is it fair to say that in the
 20 2004 study about weight on the subjects,
 21 there was no exertion?
 22 A. On this -- in this study, we did
 23 not ask subjects to exert themselves.
 24 Q. Is it true that in the 2004
 25 study, the study did not account for body

1 morphology?
 2 A. What do you mean by body
 3 morphology and account for? I guess --
 4 what do you mean by those two?
 5 Q. Well, body morphology is
 6 something I get from your literature, so
 7 why don't you define what body morphology
 8 is. You're the doctor, I'm just the
 9 lawyer.
 10 A. But you're asking the question.
 11 Q. Yeah, I am.
 12 A. So I guess the -- we did not
 13 restrict anybody based on morphology.
 14 Now, the only probably limitation that
 15 might have been there is whether they
 16 could get into the restraint position.
 17 You know, not in this study, but in other
 18 studies, we've had individuals who tried
 19 to volunteer but had a broken arm, and
 20 you couldn't really get them handcuffed
 21 behind their back, for example.
 22 So I guess my answer would be no,
 23 you know, a qualified no to say we didn't
 24 account for body morphology. We didn't
 25 limit subjects by their BMI or that sort

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1 of thing.
 2 Q. What is body morphology?
 3 A. Well, it's the basic -- I would
 4 say generically, it's sort of the shape
 5 of your body, right? But it could mean a
 6 lot of different things, you know,
 7 depending on how people think of the
 8 shape of the body.
 9 Q. Yeah, I can go with shape of the
 10 body. That's good enough. It's not very
 11 medical on your part, but I'll take it
 12 anyway.
 13 A. Not very precise, I would agree
 14 with you there.
 15 Q. Is it true in that 2004 study,
 16 you did not account for any trauma?
 17 A. Well, we didn't inflict any
 18 trauma on individuals, if that's what
 19 you're asking.
 20 Q. So there was no trauma in that
 21 study, is that true?
 22 A. Yes. I guess the question is, if
 23 you put somebody in that position, you
 24 know, if we caused any trauma, I would
 25 say no.

1 Q. Is it true that you did not
2 simulate any struggle?

3 A. We didn't ask our subjects to
4 struggle. If they were struggling
5 against the restraint, you know, that was
6 their doing. I mean, sometimes putting
7 people in that position, they feel a lot
8 of stress in that position, and they
9 might have struggled because they were
10 uncomfortable or that sort of thing, but
11 we did not ask individuals specifically
12 to try to struggle against restraint.

13 Q. For how long a period of time was
14 the weight on each individual?

15 A. I believe -- I think it was five
16 minutes, as I recall, but again, I
17 haven't looked at this study in some
18 time.

19 Q. When you put the weights on the
20 individual subjects, how were the weights
21 distributed?

22 A. We used -- they were primarily
23 probably over the back -- upper back
24 area.

25 Q. Do you know that for a fact?

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1 A. I think we have a photo. Well,
2 there's a photo actually in the study.
3 You can sort of see it. We use sort of a
4 birdshot or buckshot bag and they're --
5 it sits sort of on the back. On page
6 186, there's a photo of an individual
7 with the weight on.

8 Q. Why did you select a five-minute
9 time period for the weight to be on?

10 A. We felt that with five minutes,
11 basically, your physiology sort of
12 equivalates to your ventilatory dynamics,
13 and so we measured it -- one in five
14 minutes. I don't know if there was a
15 specific reason why we chose five minutes
16 other than the pulmonologists who were
17 involved in the study felt that that was
18 an adequate time to measure both oxygen
19 and carbon dioxide levels, as well as
20 pulmonary function testing.

21 Q. Is it true that the study did not
22 simulate any type of medication consumed
23 by the subject?

24 A. The protocol did not give -- we
25 did not give a specific medication to the

1 individual as part of the protocol. Now,
2 I'm trying to think whether or not it's
3 possible that some of these individuals
4 were on medications. I don't think we
5 did any drug testing in this study. We
6 have done it in other studies. So in
7 terms of the subjects, you know, it was
8 no restriction on their medications or
9 drug use really, to be honest. They had
10 to be, obviously, able to consent to the
11 study.

12 Q. I guess the reference I'm making,
13 it didn't simulate drug intoxication,
14 alcohol intoxication, or any other
15 medication which may affect the
16 respiratory rate of the subjects, is that
17 true?

18 A. Well, the protocol did not call
19 for us to administer any medication or
20 other drugs to the individual as part of
21 the research protocol.

22 Q. Is it true that the study did not
23 reproduce the actual amount of weight
24 force used in individuals during a
25 restraint process?

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1 A. Well, this study used twenty-five
2 and fifty pounds of weight force. I
3 cannot say that every time a law
4 enforcement or other individual put his
5 weight force on somebody to restrain them
6 in the prone position, that they only
7 used twenty-five or fifty pounds of
8 weight force, so obviously, we can't --
9 you know, we have to set a number to see
10 what weight force in general does with
11 the respiratory physiology, but
12 obviously, I can't reproduce every
13 incident in the field as to how much
14 weight force is or was applied in any
15 specific case.

16 Q. Yeah, and the reason why I say
17 that is because I'm reading your report,
18 and on page 188, it says, The amount of
19 weight selected for this study may not
20 reproduce the actual amount of weight
21 force used on individuals during the
22 restraint process. Do you see that?

23 A. Yes.

24 Q. And then you go on to say, It is
25 possible that heavier amounts of weights

1 would have impacted respiratory function
2 to a greater degree. Does that still
3 stand true?

4 A. Well, we have subsequently done
5 studies up to two hundred and twenty-five
6 pounds of weight force, so I think what
7 this says, as the limitation for this
8 study, this particular 2004 study is, we
9 don't know what additional weight force
10 would do. It may or may not impact
11 respiratory function further or
12 ventilatory function further, and so we
13 probably need to do more studies.

14 Q. So I'm trying to understand the
15 forces which may be considered by you.
16 We could agree that the prone position is
17 one of the forces, right?

18 A. What do you mean by force?

19 Q. Well, if we're talking about
20 respiratory function and restraint
21 issues, would you agree prone position is
22 one of those issues?

23 MR. WALSH: Objection to
24 form.

25 THE WITNESS: I don't know

1 MR. WALSH: I'll object to
2 the form, in terms of increased risk of
3 what, but you can answer.

4 THE WITNESS: What do you
5 mean by risk? Risk of death?

6 BY MR. BERGER:

7 Q. Risk of interference with
8 breathing.

9 A. No, I would disagree with that.

10 Q. All right. Why?

11 A. It depends, again, on what the
12 prone restraint is. Now, if you're
13 saying that they're prone, and, you know,
14 their upper airway is obstructed, you
15 know, but getting to the specifics -- but
16 in terms of I think what you're getting
17 at in terms of ventilatory function, I
18 think the studies are very clear and not
19 just our studies, all right? There's a
20 large epidemiologic study by Hall
21 comparing prone and non-prone restraint
22 in multiple agencies in the United States
23 and Canada, right, over a thousand
24 patients in that study -- or subjects in
25 that study, right? One death occurs, and

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1 what you mean by issues. When you talk
2 about restraint --

3 MR. BERGER: All right --

4 THE WITNESS: -- you've
5 talked about restraint -- let me finish
6 for a second here -- restraint can be
7 done in a supine position, a sitting
8 position, in a prone position, a hobble
9 or, you know, prone maximal restraint
10 position, so I don't know what you mean
11 by issues, but it could be one of the
12 factors in terms of how restraint is
13 performed --

14 MR. BERGER: All right, well
15 let me --

16 THE WITNESS: -- on an
17 individual.

18 BY MR. BERGER:

19 Q. Let me ask this: Would you agree
20 that there is an increased risk to the
21 patient if the patient is in the prone
22 position on his chest rather than on his
23 back?

24 MR. MC GEADY: Objection to
25 form.

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1 it is in the non-prone restraint group,
2 not the prone restraint group.

3 Q. All right.

4 A. So I think large -- the largest
5 epidemiologic -- let me finish -- the
6 largest epidemiologic comparison study
7 would suggest that that is not the case,
8 that you're suggesting.

9 Q. All right. Is it your position
10 that the prone position in restraint is
11 safer than the supine position during
12 restraint?

13 A. Define safer.

14 Q. Less risk --

15 A. Safer for whom?

16 Q. For the patient or subject.

17 A. For the patient or subject, not
18 the other individuals performing the
19 restraint, no, I'm not saying that
20 either. I'm not saying it's safer. You
21 know, my work has been basically on
22 studying the respiratory physiology of
23 different restraint positions. I think
24 our findings have been backed up fairly
25 well by larger epidemiologic studies like

1 I mentioned by Hall and others.
2 Q. What other studies in addition to
3 Hall?
4 A. Well, I believe -- I'm blanking
5 on the name -- Ross has done some
6 epidemiologic studies, and in addition to
7 that, there have been physiologic studies
8 from groups that we're not associated
9 with in Europe and in the United States,
10 have shown basically the same thing that
11 we've shown, which is prone restraint has
12 not been shown to cause hypoxia or risk
13 for asphyxiation.
14 Q. Can prone restraint cause a
15 decrease in respiratory rate?
16 A. A decrease in respiratory rate?
17 Q. Yes.
18 A. So I have not seen a study
19 showing that.
20 Q. Can prone restraint, in your
21 opinion, cause a decrease in oxygen to
22 the patient?
23 A. I have not seen a study showing
24 that.
25 Q. Do you believe it --

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1 A. And I don't believe so.
2 Q. You don't believe so?
3 A. No.
4 Q. All right.
5 A. Wait, wait, wait -- sorry, okay.
6 Sorry, go ahead and ask your question, I
7 apologize.
8 Q. No problem. It's that little bit
9 of delay. Is it your position that being
10 on your back has the same risk of death
11 during restraint as being on your chest?
12 MR. WALSH: Object to the
13 assumption in the question, generally.
14 You can answer.
15 THE WITNESS: So what I would
16 say is from a respiratory physiologic
17 standpoint, there is no real difference
18 between being restrained prone and
19 supine. On the larger epidemiologic
20 studies like Hall, they've shown that
21 there's no greater risk being restrained
22 prone or being restrained supine. If you
23 look at the anecdotal case literature,
24 everybody focuses on the sudden death
25 that are described in the prone

1 restraint, but there are actually sudden
2 death described in the literature when
3 people are restrained sitting, when
4 they're restrained in the supine
5 position, as well. So nothing in the
6 literature or in the work that we've done
7 or other groups have done would suggest
8 that being in the prone restraint puts
9 you at greater risk for what's been
10 described as sudden death or sudden in-
11 custody death.
12 Q. So it would be your position
13 whether somebody is sitting up,
14 restrained, or restrained on their
15 stomachs or restrained on their backs,
16 they are equal as to the risk of death,
17 is that true?
18 MR. MACKEY: I object to
19 form.
20 MR. WALSH: You can answer.
21 THE WITNESS: Okay. Well, I
22 think, again, I've sort of summarized in
23 my previous answer, my answer to this
24 question. I think, again, we're studying
25 the physiology. There may be other

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1 reasons to restrain somebody in different
2 positions, including whether you can
3 monitor them or that sort of thing, that,
4 you know, are a different question, but
5 from the physiologic standpoint and from
6 the epidemiologic standpoint on
7 comparison studies, you know, the answer
8 would be that there is no inherently
9 greater risk in being in the prone
10 restrained position compared to other
11 restrained positions.
12 BY MR. BERGER:
13 Q. So the risk to the individual is
14 the same whether restrained sitting,
15 whether restrained on their backs, or
16 restrained on their chests, is that true?
17 Is that your opinion?
18 A. Well, my opinion is that there
19 are deaths that have been described in
20 all these different restraint positions.
21 When we've looked at the physiology,
22 there's no respiratory -- from a
23 respiratory physiologic standpoint,
24 there's no greater risk for -- or risk
25 for asphyxiation in the prone restraint

1 position, and one more thing, and in
2 these large epidemiologic studies like
3 Hall, there's been no greater risk of
4 death in the prone restraint group.
5 Now, there probably hasn't been
6 done a large epidemiologic study compared
7 to sitting restraint or side restraint
8 yet, but, again, you know, deaths have
9 been described in those positions, as
10 well -- those restraint positions, as
11 well.

12 Q. So I'm not sure you answered my
13 question about your opinion, so let me
14 state it again. Is it your opinion that
15 the risk of asphyxiation is the same
16 whether a patient or individual is
17 restrained sitting, lying on their chest,
18 or lying on their back?

19 MR. WALSH: Object to the
20 form, because I do think he answered it,
21 but you can answer.

22 THE WITNESS: So if you're
23 referring to hypoventilatory respiratory
24 compromise leading to asphyxiation, the
25 answer would be the prone restraint

1 BY MR. BERGER:

2 Q. Let me lay it out in a little
3 broader sense and see if this helps. The
4 way I'm looking at it is you have an
5 individual who is restrained, who is
6 struggling, who has drugs on board, who
7 is restrained by force, who is restrained
8 by a certain period of time. I just want
9 to go through those factors, if you get
10 my drift. Do you see where I'm going
11 with that?

12 A. Okay.

13 Q. All right. So --

14 A. Okay, all right.

15 Q. So here's my question: Can you
16 identify the factors which you would
17 consider significant in determining
18 whether or not restraint is causative of
19 asphyxia?

20 MR. WALSH: Objection to
21 form.

22 MR. MC GEADY: I'll join in
23 the objection.

24 THE WITNESS: So when I look
25 at these cases, of course, I always look

1 position puts you at no greater risk than
2 those other restraint positions.

3 BY MR. BERGER:

4 Q. All right. Well, what do you
5 mean by respiratory physiology?

6 A. Well, respiratory physiology
7 encompasses, you know, from a -- just a
8 generic sense, the bringing in of oxygen
9 into the body, into the bloodstream, and
10 the exhalation or removal of carbon
11 dioxide out of the blood.

12 Q. So getting back to my question
13 about different forces, let's just take
14 force number one as being restraint. Is
15 restraint a factor which you consider as
16 to whether or not someone can suffer from
17 asphyxia?

18 MR. KOERNIG: Objection to
19 form.

20 MR. WALSH: Object to the
21 form, as well.

22 THE WITNESS: So is it -- are
23 you saying when I look at these cases, or
24 in general, or -- what do you mean by
25 looking as a factor?

1 at the specifics of the restraint and
2 what the physiologic impact may have been
3 of that particular restraint, so I guess
4 the answer is yes to your specific
5 question.

6 BY MR. BERGER:

7 Q. So you would always look at
8 restraint first, is that true?

9 A. Well, you didn't say first. I
10 think you look at a lot of different
11 factors at the same time.

12 Q. All right.

13 A. So I wouldn't say I'd look at it
14 first.

15 Q. All right. That gets to my
16 question. What factors would you look at
17 in addition to restraint to identify
18 whether there were significant factors in
19 causing asphyxia?

20 A. Well, I think there are a lot
21 of -- you would look at a lot of things
22 in terms of looking at, you know, whether
23 somebody asphyxiated. Was their upper
24 airway obstructed, what was the condition
25 of their lungs on, you know, some of the

1 autopsy reports, some of the description
2 of the restraint, were they described as
3 breathing, were they verbalizing, what
4 were their carbon dioxide levels if they
5 were measured, what were their oxygen
6 levels if measured. There are a lot of
7 different factors in terms of looking at
8 many different things in terms of
9 determining whether respiratory
10 compromise or asphyxiation may have
11 occurred.

12 Q. Any other factors?

13 A. That's sort of an open-ended --
14 you know, I think there could be a lot of
15 different factors. In relation to, like
16 we talked about -- historically about if
17 there was asphyxia, whether or not there
18 were respiratory depressants like alcohol
19 on board, and, you know, I probably can't
20 list all for you -- off the top of my
21 head all the factors that could come into
22 play.

23 Q. Well, is struggling one of the
24 factors you would consider?

25 A. Putting somebody at risk for

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1 asphyxiation?

2 Q. Yes, during restraint.

3 A. By itself?

4 Q. During restraint.

5 A. During restraint? Whether or not
6 a struggle would cause hypoventilatory
7 respiratory compromise? Struggle by
8 itself probably would not.

9 Q. Why not?

10 A. Well, again, if you're talking
11 about asphyxiation, and asphyxiation in
12 this case, I think you mean
13 hypoventilatory respiratory compromise,
14 there's no reason to suspect that
15 struggle in and of itself or physical
16 exertion in and of itself would put
17 somebody at risk for hypoventilatory
18 compromise.

19 Q. Can struggle in and of itself
20 increase the risk of hypoventilatory
21 compromise?

22 A. I think I just answered that, but
23 I think the answer is no.

24 Q. When struggle --

25 A. I'd have to have more specifics,

1 but struggle in itself should not
2 increase somebody's risk for
3 hypoventilatory respiratory compromise.
4 Q. Does the time the patient or
5 individual is restrained, is that a
6 factor that you would consider?

7 MR. MC GEADY: Objection.

8 THE WITNESS: A factor I
9 would consider in evaluating for sudden
10 death or a factor I would consider in
11 asphyxiation risk? Is that your
12 question?

13 BY MR. BERGER:

14 Q. Yes.

15 A. Hypoventilatory respiratory
16 compromise? So in our studies, anyway in
17 the first one, we did say some
18 individuals up to fifteen minutes, so I
19 don't believe that simply the time course
20 or the length of time would put somebody
21 at hypoventilatory respiratory compromise
22 in and of itself. Obviously, you don't
23 want to leave somebody in a prone
24 restraint position for hours on end.
25 There are other significant impacts from

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1 that, including, you know, developing
2 ulcers and decubitus and that sort of
3 thing, but in terms of strictly, you
4 know, this idea of hypoventilatory
5 respiratory compromise, I don't believe
6 so.

7 Q. How do you define hypoventilatory
8 compromise? What is your definition of
9 that?

10 A. Well, I think what we're talking
11 about is evidence that you have a
12 significantly decreased ventilation that
13 would put you at risk for asphyxiation or
14 death.

15 Q. Does decreased ventilation mean a
16 decrease in the respiratory rate?

17 A. It can.

18 Q. What else does decreased
19 ventilation mean?

20 A. It could be decreased minute
21 ventilation, it could mean decreased
22 maximal voluntary ventilation, it could
23 mean decrease in the force vital
24 capacity. All of those, you know,
25 spirometric and pulmonary parameters.

1 Q. What does decrease in force vital
2 capacity mean?

3 A. Well, force vital capacity is
4 essentially the capacity of your lungs
5 and the amount of air or volume of air
6 that you can bring into your lungs, so
7 when you talk about hypoventilation,
8 you're either decreasing the amount of
9 the air or volume of air that can move in
10 your lungs or -- essentially.

11 Q. What's decreased voluntary
12 ventilation? What does that mean?

13 A. Are you talking about maximal
14 voluntary ventilation? So that's
15 probably the amount of air that you can
16 move in and out of your lungs over a
17 given period of time on your own. If I
18 asked you to breath hard and fast for a
19 certain period of time, how much volume
20 of air you move in and out of your lungs.

21 Q. Why does decreased respiratory
22 rate put you at risk for hypoventilatory
23 depression?

24 A. Well, the amount of volume of air
25 that you move in and out of your lungs is

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1 dependent on two things, right? The
2 actual volume with each breath and how
3 many breaths you take. So, obviously, if
4 you decrease one of those, you could
5 potentially decrease the amount of volume
6 of air overall that you move in and out
7 of your lungs.

8 Q. I have to ask you, this is kind
9 of out of order, but you brought it up.
10 The fifteen-minute study that you did,
11 what type of study was that and when was
12 that done?

13 A. I believe that was the '96 study.
14 I'd have to look back and find it again.

15 Q. Oh, okay. I have it as '97,
16 actually.

17 A. '97, okay.

18 Q. Is that the study called
19 Restraint Position and Positional
20 Asphyxia?

21 A. Yes.

22 Q. Is that the one you did with Dr.
23 Neuman?

24 A. Yes.

25 Q. Is it true that you performed

1 that on thirty test subjects?

2 A. I'm just looking at it here.

3 That sounds about right.

4 Q. And that was --

5 A. It may have been -- well, let's
6 see, I'm sorry, I apologize, it's -- I
7 think it was fifteen subjects.

8 Q. Is that a study that you
9 performed in a lab?

10 A. It was done in a pulmonary --
11 clinical pulmonary function testing lab
12 where, you know, patients with asthma or
13 emphysema go to get their lung function
14 tested.

15 Q. And were there any limitations to
16 that study?

17 A. Well, again, as we mentioned,
18 obviously, we can't reproduce every
19 element that might occur in the field,
20 and we did limit it to individuals who
21 had no pulmonary, cardiac history or
22 known pulmonary, cardiac history, and we
23 did limit it to body mass index of less
24 than thirty, as I recall.

25 We also drug tested individuals,

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1 as I recall.

2 Q. I'm looking at that, and is it
3 true that the study was limited and
4 restricted to healthy men between the
5 ages of eighteen and forty?

6 A. I believe we did. Again, what we
7 did was, we assessed them for cardiac and
8 pulmonary disease to make sure there were
9 no -- any significant history of -- known
10 history of lung disease or heart disease.

11 Q. Is it true that the subjects in
12 that study had a BMI of less than thirty?

13 A. Yes.

14 Q. Is it true in that study that you
15 said, It is possible that extremely obese
16 individuals with large abdominal girths
17 and BMIs greater than thirty may be at
18 greater risk for development of
19 restrictive pulmonary function pattern as
20 a result of abdominal compression from
21 body position?

22 A. We -- that is one of the
23 limitations. We -- I would say that we
24 didn't -- at that time that study was
25 completed, we didn't know the answer

1 since we didn't study obese subjects at
2 that point.

3 Q. What do you mean by development
4 of restrictive pulmonary function
5 pattern?

6 A. Well, if you look at the -- when
7 you look at spirometric testing, and if
8 there is a decrease, it could be one of
9 two things really. It could be a
10 restrictive pattern or an obstructive
11 pattern. So, for example, patients with
12 asthma tend to have an obstructive
13 pattern. In this case, we saw decreases
14 in lung volumes when you laid down on
15 your back or when you laid down on your
16 stomach that would suggest a decrease in
17 volume that would be more the restrictive
18 pattern, but they were all still within
19 normal, and, in fact, there was really no
20 difference whether you laid on your
21 stomach or your back, so whenever any of
22 us go to sleep at night, and we lay down
23 on our back or stomach, the lung capacity
24 decreases a little bit.

25 Q. All right. By a restrictive

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1 pattern, do you mean a restriction of the
2 lungs to expand?

3 A. No, I think that the -- there's a
4 decrease in the volume, and there's an
5 equivalent decrease in the volume of both
6 the expired amount and the total lung
7 capacity.

8 Q. All right. By a decrease caused
9 by a restrictive pattern, does that mean
10 a decrease in the oxygen level?

11 A. No.

12 Q. By restrictive, I guess I'm
13 having problems understanding what you
14 mean by a restriction caused by either
15 lying on your back or lying on your
16 chest.

17 A. Fair enough. So I think, you
18 know, probably you're getting tripped up
19 on the term restrictive being -- having
20 sort of a connotation of negative. So
21 when you lie down on your back to go to
22 sleep, or on your stomach, the amount of
23 your lung -- your lung volume decreases a
24 little bit. In this study, I think -- I
25 can't remember if it was eight or nine

1 percent, right? But the reason why you
2 survive when you go to sleep at night is
3 the fact that you have excess lung
4 capacity. Just about everybody, unless
5 you have severe, severe lung disease, has
6 excess lung capacity. In fact, if
7 somebody had lung cancer, and we removed
8 a whole lobe of their -- or one side of
9 their -- you know, their right lung, in
10 theory, we've removed fifty percent of
11 their capacity of their lung tissues, and
12 yet, they're able to oxygenate just fine
13 and ventilate or get rid of their carbon
14 dioxide fine, and you've essentially
15 decreased their capacity by fifty percent
16 at that point, right? But they're
17 living, and they go to sleep, and they
18 lie down, so the human body is well
19 designed such that you have tremendous,
20 tremendous -- most people have tremendous
21 ventilatory capacity.

22 Only when you get down to
23 ventilatory capacity around twenty-five
24 percent do you begin to see problems with
25 the general role of respiratory

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1 physiology, which is to bring oxygen into
2 blood and get rid of carbon dioxide, so
3 that is why, you know, again, that you
4 can remove a whole side of your lung --
5 one whole lung, and all of us, I would
6 argue in this room, and your room, as
7 well, would be able to oxygenate and
8 ventilate and blow off their carbon
9 dioxide just fine after removing fifty
10 percent of their lung capacity.

11 Q. All right. So --

12 A. Now, if you have emphysema or
13 severe emphysema -- just let me finish
14 for a second -- then, of course, it might
15 change the story there a little bit.

16 Q. So as I understand your
17 testimony, the function of the lung is
18 twofold: Number one, to bring in oxygen,
19 and number two, to blow out carbon
20 dioxide, is that right?

21 A. Well, those are the primary
22 function of the respiratory system.

23 Q. All right. So in the study that
24 you're talking about from '97, is it true
25 that the exercise that the subjects

1 underwent was four minutes of exercise
2 before being placed in the restraint
3 position?

4 A. I believe that's correct.

5 Q. Is it true that the subjects in
6 the study did not struggle while they
7 were restrained?

8 A. Well, we did not ask individuals
9 to struggle. Whether they struggled
10 because they were uncomfortable with the
11 restraint, you know -- we didn't say,
12 don't struggle, and we didn't say
13 struggle purposefully as part of the
14 protocol for the study.

15 Q. Well, you didn't document that
16 there was struggling going on in these
17 individuals, did you?

18 A. I don't recall if we did or not.
19 We didn't, obviously, report it in our
20 article.

21 Q. Would you agree that the '97
22 study only applied to healthy individuals
23 with preserved ventilatory reflexes and
24 normal pulmonary physiology?

25 A. Well, again, we screened people

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1 for pulmonary and cardiac disease, so I
2 would say, you know, this study looked at
3 individuals who had no history of lung or
4 heart disease.

5 Q. All right. So these would be
6 individuals, in this '97 study, who had
7 normal lungs and normal hearts, is that
8 true?

9 A. That's fair.

10 Q. Is it true --

11 A. Of who -- I'm sorry, let me
12 correct that. When we screen them, we
13 ask them if they know if they have heart
14 disease or lung disease. There's no
15 question that, you know, they may have
16 had an underlying heart disease or lung
17 disease that they did not know about, so
18 we don't know the answer to that.

19 Q. All right. But that was your
20 assumption based on your screening of
21 these individuals, that they had normal
22 hearts and normal lungs, true?

23 A. I would say they had no known
24 lung or heart disease.

25 Q. Is it true that the individual

1 subjects of this study were healthy,
2 awake, nonintoxicated, nonagitated,
3 nondelirious individuals?

4 MR. MC GEADY: Objection.

5 THE WITNESS: I would say
6 that they were -- go ahead --

7 MR. WALSH: No, there was an
8 objection. You can answer.

9 THE WITNESS: I would say
10 that in general, the answer is yes,
11 because we screened for -- obviously,
12 their mental status had to be clear
13 enough to consent, and we drug tested
14 individuals, so definitely they were not
15 intoxicated.

16 BY MR. BERGER:

17 Q. In that article, you state that
18 the study notes that many deaths have
19 occurred on gurney mattresses or
20 cushioned car seats in the field. Is
21 that true?

22 A. I have to see if I said many. I
23 don't remember the exact wording, but
24 there's no question that deaths have been
25 reported in those settings.

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1 Q. You also state that you kept your
2 subject in restraint for a period of
3 fifteen minutes after the exercise
4 period, and then you go on to say, quote,
5 It is possible that had our subject
6 remained in the restraint position for a
7 longer period, we may have detected more
8 significant alterations in respiratory
9 physiology. Is that true?

10 A. That we wrote that? Yes.
11 Whether or not we know whether it does or
12 not is not -- you know, it has to be
13 studied, but there's nothing in our data
14 that would suggest that there was a trend
15 at fifteen minutes, that if we went
16 longer, there was going to be a problem,
17 but, you know, I can't definitively tell
18 you that it's not, because we didn't
19 study them after thirty minutes or an
20 hour.

21 Q. Well, you go on to say, quote,
22 However, most death of individuals in the
23 restraint position have occurred after
24 only a short period, often less than ten
25 minutes in restraint. Is that true?

1 A. Again, that's what we wrote in
2 this article. I think, you know, what
3 we're talking about are various case
4 reports that we know of, and they tend to
5 be, you know, a short time frame in terms
6 of how long the individual is actually
7 restrained.

8 Q. Then you go on to say, It is
9 possible that a combination of factors
10 including underlying medical condition,
11 intoxication, agitation, delirium, and
12 struggle, as well as body position may
13 result in respiratory compromise that
14 would not be detected by our study.
15 Agree?

16 A. Again, that we wrote that in this
17 article, yes, because we don't know,
18 however, our physiologic studies suggest
19 that there is no physiologic impact of
20 restraint in and of itself.

21 Q. So is one of the factors in
22 determining whether or not there's
23 respiratory compromise, the underlying
24 medical condition of the patient?

25 A. Yes.

1 the specifics of the agitation, I would
2 say in general, no, agitation should not
3 cause respiratory compromise.

4 Q. Well, the reason why I ask that
5 is because you have agitation in the
6 list, and I'm trying to understand why
7 you've listed agitation as one of the
8 combination of factors that might cause
9 respiratory compromise. I'm looking at
10 page five eighty --

11 A. Point me to that section again.

12 Q. It's 585, second-to-the-last
13 paragraph --

14 A. Second-to-last paragraph you
15 said?

16 Q. Yes. It starts with, It is
17 possible that a combination of factors --
18 do you see that paragraph, Doctor?

19 A. Is it the second-to-last complete
20 paragraph or the -- sorry, I'm just
21 trying to -- on which column, by the way?

22 Q. It would be --

23 A. The left column or the right?

24 Q. The right column.

25 A. Oh, okay.

1 Q. Is one of the factors in
2 determining respiratory compromise
3 whether or not the patient is
4 intoxicated?

5 A. It could be.

6 Q. Why might it be?

7 A. Because, again, if you look at
8 the original description of positional
9 asphyxia, most of those cases were people
10 who were heavily intoxicated with
11 alcohol.

12 Q. And is that because the alcohol
13 is a depressant of the respiration --
14 depresses respiration?

15 A. It can be, yes. On significantly
16 intoxicated individuals, yes.

17 Q. Is one of the factors that you
18 would consider in respiratory compromise,
19 the agitation of the patient?

20 A. Agitation in and of itself should
21 not cause respiratory compromise.

22 Q. Can agitation contribute to
23 respiratory compromise in addition to
24 other factors?

25 A. You know, again, without knowing

1 Q. Sorry about that.

2 A. Yeah, okay. I see where you're
3 getting at, okay. Yes, I think it
4 depends on the specifics of the struggle
5 and the agitation. I think we've put
6 them together there --

7 Q. Well, I simply want to know --

8 A. Agitation by itself -- go ahead.

9 Q. Could you explain why agitation
10 is one of the factors which you list as
11 one of the combinations which may result
12 in respiratory compromise?

13 A. Well, I think it's -- so I think
14 depending on the struggle and the
15 agitation, if they get them in --
16 potentially into a different position,
17 they could obstruct their upper airway.

18 I think that's one of the potentials
19 here. I think, again, we didn't study,
20 you know, agitated individuals
21 specifically, so I think this statement
22 is saying it could or could not. We
23 really don't know the answer based on
24 this study's results.

25 Q. All right. Do you know the

1 answer now, can agitation be a factor
2 which contributes to respiratory
3 compromise?
4 A. So, again, I would say it's not
5 been fully studied, but everything I know
6 in medicine would suggest agitation by
7 itself shouldn't cause respiratory
8 compromise, but if the agitation leads to
9 some position or restriction of the upper
10 airway somehow, then potentially it
11 could.

12 Q. Well, in addition to restriction
13 of the upper airway, is it true that
14 agitation can cause exertion?

15 A. Yes.

16 Q. Is it true that exertion can
17 cause muscle fatigue?

18 A. Well, depends on the level of
19 exertion. I mean, you're talking about
20 extreme levels of exertion, but yes.

21 Q. Is it true that muscle fatigue
22 can cause respiratory compromise?

23 A. Again, it depends on the level,
24 but we're talking about extreme levels of
25 muscle fatigue could lead to difficulty

1 to be functioning.

2 Q. So if there's muscle fatigue in
3 those muscles, would you agree that it
4 would make it more difficult for the
5 individual to take air in?

6 MR. WALSH: Objection to
7 form. You can answer.

8 THE WITNESS: At extreme
9 levels of exertion, very extreme levels,
10 because we don't see this very often at
11 all, the answer would be yes, but I mean,
12 we're talking about the extreme level of
13 muscle fatigue.

14 BY MR. BERGER:

15 Q. Would it also be true that that
16 type of muscle fatigue would make it more
17 difficult to expel CO2 from the lungs?

18 MR. WALSH: Objection to
19 form. You can answer.

20 THE WITNESS: Well, anything
21 that leads to respiratory compromise
22 could lead to difficulty expelling carbon
23 dioxide.

24 BY MR. BERGER:

25 Q. Okay. You also list delirium as

1 with breathing.

2 Q. How does muscle fatigue --
3 extreme muscle fatigue lead to difficulty
4 in breathing?

5 MR. WALSH: Objection to form.
6 You can answer.

7 THE WITNESS: Well, the
8 mechanics of respiration, obviously,
9 depends on muscles -- your diaphragm,
10 your chest wall muscles to create the
11 negative pressure in your chest to bring
12 air in, and then, obviously -- so that's
13 the main function of muscles. Obviously,
14 there's some recoil, obviously, as you
15 expire -- or exhale, rather. So extreme
16 levels of muscle fatigue -- and I'm
17 talking about at very extreme levels,
18 could lead to respiratory compromise.

19 BY MR. BERGER:

20 Q. Well, could you explain how?

21 A. Well, again, the mechanics of
22 respiration to bring air into your lungs
23 requires muscles to contract and relax.
24 Primarily, the diaphragm, but your chest
25 wall muscles, and so those muscles need

1 a possible factor resulting in
2 respiratory compromise. What do you mean
3 by delirium?

4 A. Well, delirium is altered mental
5 status for a variety of potential
6 reasons, and depending on what an
7 individual does when they're delirious,
8 we don't, you know -- we don't know what
9 they would do potentially that might lead
10 them into a situation where they might
11 have some respiratory compromise.

12 Q. Why do you list delirium as one
13 of the possible factors? How do you --

14 A. Well, again, we didn't study --

15 Q. I'm sorry, let me finish. How do
16 you explain delirium as being one of the
17 possible factors in causing respiratory
18 compromise?

19 A. Well, I'm not saying delirium
20 causes respiratory compromise, I'm saying
21 when a patient's delirious or an
22 individual is delirious, you don't know
23 what positions they might get themselves
24 into or how altered they are, if they are
25 significantly altered, whether it affects

1 their breathing.

2 Q. How can delirium affect the
3 breathing of an individual?

4 MR. WALSH: Objection to
5 form. So I don't think that's what he
6 said, but you can answer.

7 THE WITNESS: Well, delirium
8 itself, because the individual is
9 altered, you don't know what kind of
10 positions they might get into that might
11 obstruct their upper airway, for example,
12 or that sort of thing.

13 BY MR. BERGER:

14 Q. All right. So is it your
15 testimony that you've listed delirium as
16 one of the possible factors in
17 respiratory compromise because a patient
18 or individual might get into a position
19 of obstructing their upper airway?

20 A. I'm saying that -- that was in
21 answer to your question. I think we
22 listed these factors as, while these
23 factors aren't really studied, we don't
24 really know whether they would impact or
25 not respiratory function, but to answer

1 were not studied in this particular
2 study.

3 Q. How about studies since 1997, are
4 there any factors that you're aware of
5 whereby delirium can cause respiratory
6 compromise other than the individual
7 changing position?

8 A. I don't know of any other studies
9 around that. I think that, you know,
10 it's very hard to do these type of
11 studies on delirious individuals, because
12 they obviously can't consent to the
13 study.

14 Q. Can delirious patients
15 hyperventilate or breathe fast?

16 A. Yes, they could.

17 Q. And have you seen that happen?

18 A. Yes.

19 Q. Can delirious patients also slow
20 down their breathing and breathe slowly?

21 A. They potentially could. I -- you
22 know, in our Emergency Department, we
23 tend to see delirious patients who are a
24 little bit more likely to hyperventilate
25 than hypoventilate.

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1 your first question, that's -- you know,
2 that was a possibility.

3 Q. Right. In addition to getting
4 into some compromising position which
5 interferes with breathing, are there any
6 other factors where delirium could cause
7 respiratory compromise?

8 A. Again, it would depend on the
9 particular individual and how delirious
10 they were and how altered they were as to
11 whether it would affect their respiratory
12 function or not.

13 Q. Well, that's what I'm trying to
14 understand, and forgive me if I'm being a
15 little thick here. Why does altered
16 state caused by delirium affect and
17 possibly cause respiratory compromise?

18 A. Well, I think when somebody is
19 delirious, we don't actually -- you know,
20 they could do actions we're not
21 expecting. They could obstruct their
22 upper airway in some manner or that sort
23 of thing. So, again, these are
24 possibilities. You know, we don't really
25 -- these delirious studies -- individuals

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1 Q. Why is that?

2 A. Well, I think they're -- you
3 know, the delirium is more that they can
4 be a little bit more -- I just think in
5 the Emergency Department, we tend to see
6 more delirious individuals who are a
7 little bit more excited at that point
8 rather than sedated.

9 Q. Can the hyperventilation caused
10 by delirium increase the risk of
11 respiratory compromise?

12 A. Hyperventilation leading to
13 respiratory compromise? Is that what
14 you're saying?

15 Q. Yes.

16 A. I'm sorry, I didn't quite hear
17 you.

18 Q. I'm sorry. Can hyperventilation
19 caused by delirium lead to respiratory
20 compromise?

21 A. Well, in general,
22 hyperventilation isn't really respiratory
23 compromise. It means you're actually
24 overventilating, so it doesn't mean that
25 your respiratory system is compromised.

1 Q. But my question is, is can
2 hyperventilation lead to respiratory
3 compromise?
4 A. I don't believe that's generally
5 the case.
6 Q. All right. Can it be the case?
7 You're answering the question generally,
8 you say no, but I'm saying to you, once
9 you put the qualifier of generally in,
10 then I have to ask the follow-up
11 question. That's what we do even if it's
12 inept. I apologize, but any of us would
13 have done that, so here's my question --
14 A. Fair enough.
15 Q. Can hyperventilation lead to
16 respiratory compromise?
17 A. Well, it's an interesting
18 question, because I think by definition,
19 it really doesn't make sense, right?
20 You're saying compromise of the
21 respiratory system, but they're
22 hyperventilating, so their respiratory
23 system is actually functioning at a
24 higher level there. They're
25 overbreathing in some sense, so I don't

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1 think it quite makes sense.
2 Q. All right. Well --
3 A. Your question.
4 Q. Well, it makes sense to me, but
5 that's all right. If a patient is
6 hyperventilating, can that lead to muscle
7 fatigue of the lungs or the muscles
8 around the lungs?
9 A. I guess the question is what is
10 driving the hyperventilation. By the
11 time your CO2 drops -- I mean, you know,
12 hyperventilation is an interesting thing.
13 People don't die because of muscle
14 fatigue from hyperventilating, right,
15 because if their muscles fatigue, they
16 stop hyperventilating.
17 Q. Do they stop hyperventilating
18 because of muscle fatigue?
19 A. They're more likely less muscle
20 fatigue than, you know, their carbon
21 dioxide levels drop so low that they just
22 sort of naturally start to slow down
23 their breathing at that point, so I don't
24 know -- in terms of extreme muscle
25 fatigue, you don't really get there from

1 hyperventilation. It would be hard to do
2 that.
3 Q. All right. When you say that the
4 carbon dioxide drops so low, you mean the
5 carbon dioxide in the lungs?
6 A. No, in the blood.
7 Q. All right.
8 A. Right, because you're blowing
9 off -- if you're hyperventilating, you're
10 actually lowering your carbon dioxide
11 levels.
12 Q. Well, if you're hyperventilating,
13 aren't you also taking in more oxygen?
14 A. Well, you know, the bloodstream,
15 you know, you sort of max out on how much
16 oxygen you can really load into your
17 blood, so you may be breathing more, but
18 you sort of max out the amount of oxygen
19 you can really get into your blood.
20 Q. Why is that?
21 A. Well, remember, you know, unlike
22 carbon dioxide, most of your oxygen in
23 your blood is bound to hemoglobin. It's
24 not dissolved in the blood plasma or
25 serum, so your oxygen carrying capacity

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1 in your blood is really limited by how
2 much hemoglobin you have, not how much
3 oxygen can be dissolved in the blood.
4 Carbon dioxide is not bound to anything,
5 so carbon dioxide is really what can be
6 dissolved into your bloodstream.
7 Q. If a patient turns blue, does
8 that mean that the patient has a lack of
9 oxygen?
10 A. Well, it can. It depends on
11 what's causing the blueness. I mean, if
12 you're talking about cyanosis, cyanosis
13 is a specific amount of unbound
14 hemoglobin -- that is, hemoglobin that's
15 not bound to oxygen, so I think it's five
16 grams per deciliter or something like
17 that, that tends to give a bluish tinge
18 at that point.
19 Q. So does that mean that when a
20 patient turns blue, the patient does not
21 have enough oxygen in the patient's
22 blood?
23 A. Well, it could mean a number of
24 things. I mean, you can turn cyanotic or
25 blue from lung problems or heart

1 problems, really. It depends on how much
2 blood is moving around and how much
3 deoxygenated blood is in the tissues.
4 Q. All right. I think I understand
5 what you're saying. In other words, if
6 the heart's not pumping, there's no
7 perfusion of oxygen in the body, and the
8 patient can turn blue, is that true?
9 A. Yes.
10 Q. By the same token, if the lungs
11 aren't functioning or are comprised, the
12 patient can also turn blue, is that true?
13 A. Yes.
14 Q. And it could be a combination of
15 both factors, there's respiratory
16 compromise and the heart's not
17 functioning, is that true?
18 A. Yes.
19 Q. Is it also true that if the lungs
20 don't have enough oxygen, that that can
21 cause the heart to stop?
22 A. If the lungs don't have enough
23 oxygen?
24 Q. Yes.
25 A. Causing the blood not to have

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1 enough oxygen?
2 Q. Yes.
3 A. Is that what you're saying?
4 Q. Yes.
5 A. Yes.
6 MR. BERGER: Could you read
7 that back? There were a lot of yeses.
8 (The reporter read back the
9 following: "Q. Is it also true that
10 if the lungs don't have enough
11 oxygen, that that can cause the heart
12 to stop? A. If the lungs don't have
13 enough oxygen? Q. Yes. A. Causing
14 the blood not to have enough
15 oxygen? Q. Yes. A. Is that what
16 you're saying? Q. Yes. A. Yes.")
17 BY MR. BERGER:
18 Q. If the lungs don't have enough
19 oxygen causing the blood not to have
20 enough oxygen, can that cause the heart
21 to stop?
22 MR. MACKEY: Object to form.
23 MR. MC GEADY: I'll join in
24 that objection.
25 MR. MACKEY: The use of the

1 word enough.

2 THE WITNESS: So, yes, I
3 guess what I'm tripping over is your
4 description of lungs not having enough
5 oxygen. Really, you're saying if the
6 lungs aren't getting enough oxygen into
7 the alveoli, then there's less oxygen in
8 the blood, that could lead to tissue
9 damage, including the heart.

10 MR. BERGER: Do you want to
11 take a quick break? Very quick?

12 THE WITNESS: Sure.

13 (A recess was taken.)

14 BY MR. BERGER:

15 Q. I just want to talk a little bit
16 about the 2007 study. Is it true that in
17 the 2007 study, the subjects were young
18 and healthy individuals with high aerobic
19 fitness levels?

20 A. That's the -- I don't have it in
21 front of me, so, you know, if you're
22 reading from it, then, yeah, I believe
23 that's the case.

24 Q. Is it true that the BMIs of the
25 subjects of the study, none of them were

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1 over thirty?
2 A. I -- again, if you're reading
3 from it, then that would be the case. I
4 just don't have it in front of me.
5 Q. I'm relying on Abe next to me to
6 be accurate here, so we are reading from
7 it.
8 A. Okay.
9 Q. What's his background? What's
10 his training? Hopefully, medical, right?
11 Q. He has family members who are
12 doctors. That's as close as we get
13 around here.
14 If a BMI is not over thirty, would
15 it be true that those individuals have no
16 belly fat?
17 A. No, I don't think that would
18 necessarily be the case. I think you
19 have to look at the range of BMI. I
20 mean, BMI is basically, you know,
21 comparing weight and height, but not
22 necessarily make a real clear distinction
23 in terms of body morphology --
24 Q. Why would you --
25 A. Shape, as you will.

1 Q. I'm sorry. Why would you choose
2 subjects for this study who were young,
3 healthy, with high aerobic fitness
4 levels?

5 A. I'd have to look at the study.
6 I'm not sure we limit -- they had to do a
7 PAR Q, which is a fitness readiness,
8 because one aspect of the study is that
9 we were going to do a maximal treadmill
10 test on them to see what their maximum
11 exertion was, so obviously, we couldn't
12 take somebody who couldn't exercise,
13 because part of the study involved a
14 significant amount of exercise. I'm not
15 sure -- you know, I have to look at the
16 study to see what our limitations were,
17 but because we were doing it at the state
18 college, it was likely that a lot of our
19 recruits were going to get paid, were
20 going to be, you know, students and grad
21 students.

22 Q. Desperate for money. Is it true
23 that gymnastic mats were used as a
24 surface?

25 A. I believe we used some sort of

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1 mat. We did not use a hard floor, that's
2 true.

3 Q. And the study, as a limitation,
4 could not reproduce all the conditions
5 that might occur in the field, agree?

6 A. I would agree.

7 Q. As I understand the study, or I
8 should say, as Abe understands the
9 study -- but let me rephrase the
10 question. As I understand the study, it
11 involved two separate trials: One trial
12 with various weights but no struggle, and
13 a second trial with individuals who
14 struggled but with no weight force. Is
15 that accurate?

16 A. In general, yes. So the first
17 part really looked at what is the impact
18 of high weights, now that we had studied
19 low weights and found no significant
20 impact, what were the effect of high
21 weights. The second part really looked
22 at if we put you in a prone maximal
23 restraint position, and you struggled,
24 how much oxygen, you know -- we measured
25 not only respiratory parameters but

1 oxygen consumption.

2 Q. Is it true that the struggle
3 without weight was only sixty seconds of
4 struggle?

5 A. I believe it was a short time.
6 It wasn't -- it was probably -- I think
7 it was a minute.

8 Q. Is it true that the struggles
9 were voluntary struggles?

10 A. Well, I'm not sure what
11 involuntary struggle is really, right,
12 because if somebody struggles, they're
13 volitionally struggling.

14 Q. Let me ask this: Would you agree
15 that an involuntary struggle might be a
16 struggle where the patient is confused or
17 delirious?

18 A. Well, that would mean that they
19 are unaware that they are struggling, but
20 I don't know what you mean by involuntary
21 struggle.

22 Q. All right. Let me ask it this
23 way: A struggle which is voluntary on
24 the part of your subject for the study
25 would be a different type of struggle

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1 than a struggle with a confused or
2 delirious individual, would you agree
3 with that?

4 A. Different how?

5 Q. Well, a confused or delirious
6 individual in a real setting would be
7 different than the lab setting of a
8 subject who is struggling for only sixty
9 seconds, true?

10 MR. KOERNIG: Objection.

11 THE WITNESS: Well, I
12 guess -- again, different how? What do
13 you mean by different?

14 BY MR. BERGER:

15 Q. Well, let me ask it another way.
16 When you told the subjects of this study
17 to struggle for sixty seconds, what did
18 you instruct them to do?

19 A. We told them to fight against the
20 restraints as hard as they possibly
21 could.

22 Q. In the --

23 A. And move and struggle as much as
24 they could.

25 Q. All right. In your Emergency

1 Department, have you seen patients who
2 have been restrained in the prone
3 position?

4 A. Yes.

5 Q. Have you seen patients who have
6 been confused and restrained in the prone
7 position?

8 A. Yes.

9 Q. Have you seen them struggling,
10 these patients who are restrained in your
11 Emergency Department, restrained and
12 confused, struggling with all their
13 might?

14 A. Well, it looks like they're
15 struggling with all their might, yes.

16 Q. Have you also seen patients in
17 your Emergency Department who are
18 delirious, struggling while they were
19 restrained in the prone position?

20 A. Yes.

21 Q. And have those patients in your
22 Emergency Department who have been
23 restrained and delirious in the prone
24 position been struggling with all their
25 might? Have you seen that?

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1 A. Yes.

2 Q. Have you seen these patients
3 struggle, these patients in your
4 Emergency Department, where they're
5 confused or delirious struggle for longer
6 than sixty seconds?

7 A. Off and on, yes, I would say they
8 struggle, and then they stop, and they
9 struggle, and they stop. I would say,
10 you know, continuous it's hard to do
11 that.

12 Q. Is it hard to do that because
13 these patients have exerted themselves
14 and cannot sustain that exertion?

15 A. Well, I would say that they
16 struggle -- you know, why they, you know,
17 struggle, or in terms of consistently
18 maintaining struggling with all of your
19 might is -- you know, you do get tired
20 and you stop, and then you start
21 struggling again, and you get tired and
22 that kind of thing.

23 Q. Is it true that data from the
24 subjects from the 2007 study were
25 excluded from the study because they were

1 psychologically unable to tolerate the
2 restraint?

3 A. I believe one subject said, you
4 know what, I can't -- I want -- you can
5 always -- these type of studies, you can
6 always opt out, right, so you can't force
7 somebody to do something that they don't
8 want to do, and yes, there was at least
9 one subject who said I don't want to
10 continue this.

11 Q. That one subject stopped the
12 experiment because he was frightened or
13 she was frightened, is that true? Do you
14 remember?

15 A. I don't know if she was
16 frightened. I think it was a she. I
17 don't recall. I think she said, I don't
18 like this, I want to stop.

19 Q. Would --

20 A. I can't remember if she said she
21 was frightened.

22 Q. Would you agree that a confused
23 or delirious person in real life may be
24 frightened during the course of being
25 restrained in the prone position on their

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1 chest?

2 A. Well, I don't -- you know, who
3 knows what is going on inside the mind of
4 a delirious person. If you're saying
5 somebody could be anxious, regardless of
6 whether they are delirious or not, if
7 they're being restrained against their
8 will, I'd say yes.

9 Q. And is it true that the confused
10 or delirious person in real life may be
11 in a position where they can't choose to
12 stop struggling because of confusion or
13 delirium?

14 A. I'm not sure -- I'm not quite
15 sure I understand your question. You're
16 saying they won't stop because they're
17 confused?

18 Q. Yes.

19 A. Is that what you're asking?

20 Q. That's what I'm asking.

21 A. I'm not sure -- they might --
22 well, I mean, the reason that they
23 continue to struggle might be because
24 they're confused. That's definitely a
25 possibility.

1 Q. Can a person's who's confused
 2 or --
 3 A. And they're not -- let me finish.
 4 Give me one second. And they might not
 5 understand commands for them to stop.
 6 That's a possibility.
 7 Q. Again, I didn't mean to interrupt
 8 you. I thought you were finished.
 9 A. Yeah, I -- that was my pause.
 10 That was not the delay.
 11 Q. Can a person who is confused or
 12 delirious struggle more intensely?
 13 A. More intensely than what?
 14 Q. Than a person who is not confused
 15 or delirious.
 16 A. I think that just depends on how
 17 much they struggle. Whether they -- you
 18 know, I'm not sure I think that they
 19 automatically would struggle more.
 20 Q. Well, would you agree that a
 21 person who is confused or delirious would
 22 struggle more intensely than the test
 23 subjects in your sixty-second lab
 24 experiment?
 25 MR. MC GEADY: Objection.

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1 MR. WALSH: I'll object to
 2 the form, as well.
 3 THE WITNESS: Not
 4 necessarily. I think it depends on how
 5 hard the person is struggling. You
 6 know, somebody may not be confused and
 7 struggling as hard as possible because
 8 they think they can break the restraints,
 9 right? So they may be struggling very
 10 hard. If we look at the physiologic
 11 parameters of exertion in terms of heart
 12 rate and that kind of thing, I think, you
 13 know, that could be a marker of how hard
 14 somebody might be struggling.
 15 BY MR. BERGER:
 16 Q. Why would heart rate be a marker
 17 to determine how hard somebody is
 18 struggling?
 19 A. Well, they're exerting
 20 themselves, so if you're physically
 21 exerting yourself, you know, the body
 22 responds, and one of the responses that
 23 the body has is to increase the heart
 24 rate, increase blood flow, and so that
 25 can be suggestive of, you know,

1 struggling harder. That shouldn't be a
 2 marker physically of exerting yourself
 3 more against restraint.
 4 Q. If the person is struggling hard
 5 and increasing the heart rate to increase
 6 the blood flow, is that because the
 7 person needs more oxygen?
 8 A. So, when you exert yourself, you
 9 actually hyperventilate, and your
 10 ventilation is actually driven more by
 11 acidosis and carbon dioxide and in
 12 prepping for the carbon dioxide retention
 13 than a drop in oxygen. And, in fact,
 14 because, as I mentioned, your oxygen is
 15 bound by hemoglobin, you know, carbon
 16 dioxide and acid levels are much more
 17 sensitive indicators for respiratory
 18 function, cardiac function, and driving
 19 cardiac function and exertion than drops
 20 in oxygen levels.
 21 Q. So does that mean if carbon
 22 dioxide is building up in the
 23 bloodstream, your heart rate will
 24 increase?
 25 A. No, your heart rate probably

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1 increases in anticipation and because of
 2 acidosis more than the carbon dioxide
 3 initially. At least when they start an
 4 exercise.
 5 Q. Is acidosis the same as
 6 hypoxemia?
 7 A. No.
 8 Q. All right. I'm a little
 9 confused. Let me see if I can get back
 10 to this. Is it your testimony that when
 11 the heart rate increases, that one of the
 12 factors can be an increase in the carbon
 13 dioxide in the body?
 14 MR. MACKEY: Object to the
 15 form.
 16 THE WITNESS: I think it's
 17 much more complex than -- I think there's
 18 not a direct cause and effect. What it
 19 is, is that as you exert yourself, right,
 20 you're generating acidosis. That causes
 21 a number of physiologic effects,
 22 including you hyperventilate a bit, your
 23 heart rate might increase, and so that's
 24 all a part of the body's response to
 25 exertion.

1 BY MR. BERGER:

2 Q. Is one of the reasons that the
3 heart rate increases is to take in more
4 oxygen?

5 A. No.

6 Q. That doesn't happen?

7 A. Your heart rate increases to take
8 in more oxygen, no.

9 Q. Does your heart rate increase in
10 order to get more oxygen into the
11 bloodstream?

12 A. Your heart rate probably
13 increases to offload more carbon dioxide,
14 address the acidosis, and continues to --
15 again, oxygen is bound to hemoglobin, so,
16 you know, you're pretty fully loaded with
17 oxygen. Only when your oxygen is
18 extremely low would the heart rate
19 increase to try to get more oxygen off
20 the lungs into the blood. You know, when
21 you exercise, if you measure oxygen
22 levels, unless you have severe, severe
23 lung disease, the most sensitive
24 indicator for how you're breathing is
25 your carbon dioxide levels not your

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1 oxygen levels in your blood.

2 Q. But I think I just heard you say
3 if your oxygen level is low, your heart
4 rate does increase, is that true?

5 A. Yes. If your oxygen level is
6 low, that could be an increase, but
7 again, when people -- I was doing it in
8 the context of what we were talking
9 about, which is exertion and struggle.
10 When you physically exert yourself, your
11 oxygen level does not drop until you're
12 significantly, you know -- you know,
13 significantly, significantly in severe
14 exertion territory. The most sensitive
15 indicator for respiration and ventilation
16 is really carbon dioxide, not oxygen,
17 because your oxygen binds to hemoglobin
18 in your blood so the oxygen levels
19 generally stay pretty high.

20 Q. So I'm sorry, and I apologize,
21 because I came in with a different
22 understanding of something, so let me see
23 if I can clear this up. Why do you say
24 the most significant indicator is the
25 carbon dioxide?

1 A. Significant indicator of what?

2 Q. I'm just trying to understand
3 your answer. Maybe I misstated what you
4 said.

5 A. Okay. If I stopped you from
6 breathing right now, right, the first
7 thing that's really going to happen is
8 your carbon dioxide level is going to
9 rise, and you'll have some acid along
10 with that, but your oxygen level in your
11 blood will not drop -- and I'm talking
12 about blood levels -- significantly. So
13 when -- you know, when we are looking at
14 somebody who we think might be
15 hypoventilating in the Emergency
16 Department, we can't -- oxygen may not be
17 an indicator for a problem with
18 ventilation. Carbon dioxide would be the
19 earlier indicator.

20 Q. So how do you get the carbon
21 dioxide off?

22 A. How do you get it off?

23 Q. Yes.

24 MR. KOERNIG: Objection.

25 THE WITNESS: You

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1 hyperventilate or -- you hyperventilate
2 or, you know, I take over breathing for
3 the individual, you know, with -- you
4 know, intubate them. You're talking
5 about in the Emergency Department?

6 BY MR. BERGER:

7 Q. Yes. When somebody is --

8 A. I --

9 Q. You were saying so --

10 A. Go ahead, you give me your
11 scenario.

12 Q. All right. So if a patient is
13 hyperventilating in the Emergency
14 Department, do you ever give those
15 patients oxygen?

16 A. If they're hyperventilating? No.

17 Q. When do you give them oxygen?

18 A. When their oxygen level is low.

19 Q. How do you determine whether or
20 not the patient's oxygen level is low?

21 A. There are different ways. You
22 can either draw blood, or you can do
23 what's called a pulse oximetry and
24 measure the percentage of hemoglobin
25 that's bound to oxygen.

1 Q. Is the pulse oximetry accurate
2 for those purposes in the Emergency
3 Department?

4 MR. MC GEADY: Objection.

5 THE WITNESS: It depends.
6 Generally, it is, but if somebody is --
7 it can be -- it can be inaccurate when
8 somebody is clamped down -- that is, they
9 don't have a lot of blood flow to the
10 tissues or where you're trying to measure
11 that oxygen saturation level at. If they
12 don't have a good wave form in terms of
13 the device measuring blood flow through
14 whatever tissue you happen to put the
15 monitor on --

16 THE REPORTER: Excuse me,
17 Doctor --

18 THE WITNESS: I'll try to
19 clean it up, sorry. It depends on the
20 situation of the condition of the patient
21 and where the pulse oximetry probe is
22 placed and whether there's good blood
23 flow or not through that tissue.

24 BY MR. BERGER:

25 Q. In your 2007 study, did the test

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1 subjects know that they would be only
2 struggling for sixty seconds?

3 A. Yes.

4 Q. In the test of 2007, did the test
5 subjects know that they would be released
6 from the prone position in about five
7 minutes?

8 A. I believe they did. I can't
9 recall specifically what they told them.
10 I'd have to look at the study again.

11 Q. Is it true that in that study of
12 2007, that the intensity of movement
13 during the struggle was visibly waning in
14 all subjects by the end of the sixty-
15 second trial?

16 A. Well, I can't recall
17 specifically, but we did ask them to
18 struggle as hard as they possibly could,
19 so I would suspect they they were tiring
20 at some point.

21 Q. Actually, I am quoting from the
22 article.

23 A. Okay.

24 Q. Would you agree --

25 A. I'll take your word for it.

1 Q. All right, but do you agree with
2 the principle that the intensity of
3 movement during a struggle can visibly
4 wane at the end of sixty seconds?

5 A. It did in this case?

6 Q. I'm saying in general.

7 A. It's definitely possible -- yeah,
8 go ahead.

9 Q. The first question is in general.

10 A. Well, again, it depends on how
11 hard somebody is struggling. We asked
12 these people to struggle very hard
13 against the restraint, so I'm not
14 surprised that if we asked them to
15 struggle very hard, that towards the end,
16 they were getting a little bit tired.

17 Q. Why would you say that you're not
18 surprised that the intensity of movements
19 during the struggle demonstrated that
20 these patients were waning by the end of
21 sixty seconds?

22 A. Because we asked them to struggle
23 as hard as possible right from the
24 get-go. We wanted to really see them
25 struggle and fight the restraints.

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1 Q. And in this 2007 study, all the
2 subjects were under forty years old,
3 true?

4 A. I don't have the study in front
5 of me, but, you know, if that's what the
6 study says, then I would have no reason
7 to doubt it.

8 Q. So do you have an explanation why
9 one of your studies says that many of the
10 deaths, restraint have occurred on gurney
11 mattresses?

12 A. Do I have an explanation?

13 Q. Yes.

14 A. So first of all, which study are
15 you quoting from?

16 Q. That would be -- of course.

17 A. You have to give me some frame of
18 reference.

19 Q. That would be the 1997 study.

20 A. '97 -- which page?

21 Q. Hold on. Page 585, left-hand
22 column, last -- starting with the last
23 paragraph.

24 A. Last full paragraph?

25 Q. No, last paragraph.

1 A. Okay.
 2 Q. It starts, quote, This study --
 3 A. If you read -- I see it.
 4 Although many such deaths have occurred
 5 on gurney mattresses or cushioned car
 6 seats in the field, some deaths have
 7 occurred while persons were in the
 8 restraint position on the ground, is that
 9 the one you're referring to?
 10 Q. Exactly.
 11 A. I think there are case reports of
 12 these deaths, you know, that occurred in
 13 different settings, whether it's the back
 14 of a car seat, on the ground, or gurneys.
 15 Q. Do you have an opinion why many
 16 such deaths have occurred on gurney
 17 mattresses?
 18 MR. WALSH: Objection to the
 19 form.
 20 MR. MC GEADY: Join.
 21 THE WITNESS: Because it says
 22 gurney mattresses or cushioned car seats
 23 or on the ground, I think there are case
 24 reports of these occurring in different
 25 settings, so it's not just cushioned

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 1 mattresses. We also said ground, and we
 2 also said back of car seats, and I could
 3 add, you know, there are cases now in
 4 back of patrol cars in -- you know, on
 5 cushioned seats in the cars and that sort
 6 of thing.
 7 BY MR. BERGER:
 8 Q. And those are all deaths where
 9 the position was a restraint position,
 10 true?
 11 A. Well, I would say that people --
 12 I believe those cases were cases where
 13 individuals were restrained.
 14 Q. And so let me ask why -- if you
 15 have an opinion why some deaths have
 16 occurred on gurney mattresses?
 17 A. As to why these deaths have
 18 occurred?
 19 Q. Yes --
 20 A. Is that what you're saying?
 21 Q. Well, I'm just trying to
 22 determine whether the surface makes a
 23 difference.
 24 A. Fair enough. So, you know,
 25 again, it depends on the specifics of the

1 case, but because these deaths have
 2 occurred on different surfaces -- ground,
 3 cushioned mattresses, side position, on
 4 your back, in a chair, right, it would
 5 suggest that these deaths, which are all
 6 very similarly described, which is
 7 there's fighting and exertion and then
 8 suddenly stopping, all suggests that it's
 9 not, right, the actual restraint
 10 position, because these deaths have
 11 occurred in different restraint
 12 positions, or really the type of surface
 13 that these individuals are in. Something
 14 else is going on, right, because we have
 15 deaths that occur on gurney mattresses,
 16 we have deaths that occur in chairs, we
 17 have deaths that occur, you know, on the
 18 ground, we have deaths that occur in the
 19 back seat of a car, and we have deaths
 20 that occur on the floor of the car.
 21 Q. Well, would it be true that
 22 the --
 23 A. So something more -- what's that?
 24 So to pin the cause as to either the
 25 surface or the position, doesn't seem to

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 1 make sense.
 2 Q. Is it true that the one common
 3 thread of all those deaths is that the
 4 individuals were restrained?
 5 A. For restraint deaths, yes.
 6 Q. Is it true that all of those
 7 restraint deaths involved individuals who
 8 were fighting or struggling?
 9 A. Well, generally, if you're put in
 10 restraints, at some point you're fighting
 11 and struggling for the most part, yes.
 12 Q. Is it true that all those deaths,
 13 whether seated, prone position, on the
 14 chest, on their backs, on car cushions,
 15 gurneys, or floors of police cars, that
 16 all of those individuals suffered
 17 exertion as a result of fighting or
 18 struggling while restrained?
 19 Mr. MACKEY: Object to form.
 20 It doesn't specify the time of the
 21 struggle.
 22 (Discussion off the record.)
 23 THE WITNESS: I would say
 24 that not -- you know, all these cases is
 25 a big picture, but, you know, probably

1 the vast majority there was some element
2 of exertion and struggle.
3 BY MR. BERGER:
4 Q. All right. Do you have your
5 report in front of you, Doctor?
6 A. Let me see. Do you have a copy
7 of it? Okay, yes.
8 Q. Before we get there, you're on
9 staff at which hospital?
10 A. University of California, San
11 Diego.
12 Q. You're the Chair of the Emergency
13 Department there?
14 A. Yes.
15 Q. Are you a hospital employee?
16 A. I'm a University employee.
17 Q. All right. The medical/legal
18 work that you do, is that through the
19 University, or is that done privately?
20 A. That's done privately. I have to
21 stay within a certain number of days per
22 month with the University on doing
23 outside activities like this.
24 Q. How many days per month?
25 A. Outside professional activities.

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1 Q. How many days per month?
2 A. I think it's four days.
3 Q. And do you work four days per
4 month on outside activities of
5 medical/legal subject matter?
6 A. I do less than that.
7 Q. About how many days per month do
8 you do medical/legal work?
9 A. Probably one to two days.
10 Q. Do you do any medical/legal work
11 at home in addition to the time that you
12 spend away from the hospital doing
13 medical/legal work, nights or weekends?
14 A. Well, yes. I mean, I do it at
15 home. I don't do any of this work at the
16 University.
17 Q. All right. When you say the
18 University limits you to four days per
19 month, does that mean you're able to take
20 off four days per month from your work at
21 the hospital to do medical/legal work?
22 A. No, it's really extra work
23 that's -- you know, I have essentially a
24 certain number of hours I work for the
25 University, and then any other hours --

1 you know, it's not days, you know, it's
2 something like this day for this or this
3 day for that. It's really in hours.
4 Q. Are you a practicing emergency
5 room physician?
6 A. Yes.
7 Q. How many days per week do you
8 work in the Emergency Department?
9 A. So right now, it's -- I probably
10 work a shift and a half a week, a little
11 bit less.
12 Q. All right. What do you do when
13 you're on that shift?
14 A. Take care of patients, supervise
15 residents, medical students.
16 Q. Do you teach medical students and
17 residents?
18 A. Yes.
19 Q. Do you teach those medical
20 students and residents about restraint of
21 patients?
22 A. You know, I haven't lectured on
23 this topic in some time, so in general --
24 yes, I would say yes in terms of
25 restraints, yes.

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1 Q. Do you cite any hospital policies
2 when you talk about restraint of
3 patients?
4 A. We do have hospital policies in
5 regards to restraints.
6 Q. Does your hospital and your
7 hospital policy prohibit the use of
8 restraints in a prone position on a
9 patient on his or her chest?
10 A. No.
11 Q. Does your hospital policy limit
12 the amount of time a patient is allowed
13 to be restrained in the prone position on
14 his or her chest?
15 A. I don't know if it's -- I'm
16 sorry, I don't if it's specific to prone.
17 There's definitely time limits as to
18 restraint.
19 Q. All right. Does your hospital
20 policy permit physical restraint of
21 patients by security guards and/or
22 nurses?
23 A. Yes.
24 Q. Does your hospital policy require
25 that patients be monitored during the

1 time period that the patient is
2 restrained?
3 MR. MACKEY: Object to the
4 form.
5 MR. MC GEADY: I'll join in
6 that objection.
7 MR. WALSH: I'll object to
8 the form, but I'm also going to object to
9 the substance to the extent that Dr. Chan
10 is here not to talk about standard of
11 care issues whatsoever, so I'll object to
12 the inquiry. I'm not going to direct him
13 not to answer the question, but I will
14 object to its use substantively at trial
15 or at any other point in time.
16 You can answer.
17 THE WITNESS: I've forgotten
18 the question, sorry. Could you repeat
19 it?
20 BY MR. BERGER:
21 Q. Does your hospital policy require
22 patients to be monitored while
23 restrained?
24 A. There is some type of monitoring,
25 I believe, required. I can't remember

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1 the exact language. It may be
2 observation. It depends on the type of
3 restraint.
4 Q. Well, there's a difference
5 between observation and monitoring, is
6 that true?
7 A. Well, how are you using the term
8 monitoring?
9 Q. Well, I'm just trying to find out
10 what your hospital policy determines what
11 needs to be done.
12 A. Well, I think, you know, when you
13 say monitoring, that can mean, you know,
14 checking the patients every fifteen
15 minutes, every sixty minutes, it could be
16 continuous cardiac monitoring, it could
17 be telemetry, it could be pulse oximetry,
18 or it could be an observer watching the
19 patient. It depends on why the patient
20 is being restrained, right, whether it's
21 medical or behavioral and that sort of
22 thing. I don't recall the specifics of
23 the policy, but there is requirements in
24 terms of, you know, checking the patient
25 who is restrained.

1 Q. All right.
2 A. And there are time limits.
3 Q. By checking the patient, does
4 that include checking the heart rate of
5 the patient?
6 A. It can. I don't know if the
7 policy specifically calls for that.
8 Q. Does the hospital policy include
9 checking the oxygenation of the patient?
10 A. I don't believe it's specific to
11 that, but, you know, I haven't looked at
12 the details of the policy really
13 recently.
14 Q. Does the hospital policy include
15 checking any other vital signs of the
16 patient?
17 A. There may be some comments about
18 how frequently the vitals need to be
19 checked, and I can't remember the exact
20 time frames. It's more of a nursing
21 protocol once the individual's
22 restrained.
23 Q. During your shifts in the last
24 month, have you had patients who have
25 come in who had to be restrained?

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1 A. Yes.
2 Q. Have you supervised the restraint
3 of those patients?
4 A. Yes.
5 Q. When you've supervised the
6 restraint of those patients, have you
7 instructed patients who were restrained
8 to be restrained on their backs rather
9 than on their chests?
10 MR. WALSH: Again, I'll object
11 to the line of questioning, because I
12 think it is not at all relevant to his
13 opinions here as to causality. It's
14 merging into, I think, clearly standard
15 of care and how patients should be
16 treated, so I'll object to it. I will
17 allow him to answer, but I reserve the
18 right to strike this testimony.
19 THE WITNESS: I don't recall
20 making that specific request in the last
21 time period, whatever, couple months,
22 whatever you said.
23 BY MR. BERGER:
24 Q. Let me ask this: Would you agree
25 that it's easier to check the respiration

1 of the patient if the patient is on his
2 back rather than on his chest?

3 A. I think it depends. I think in
4 general, you know, it's easier to monitor
5 a patient when they're on their back.

6 Q. Why is it easier to monitor a
7 patient while the patient is on his back?

8 A. Well, because you can put the
9 cardiac monitor on their chest, and so
10 you can -- it's easier just to put the
11 devices on them in terms of monitoring
12 the individual.

13 Q. The testimony in this case to
14 date has included testimony that it's
15 easier to watch the chest rise and fall
16 and count respirations when the patient
17 is on his back rather than on his chest.
18 Do you agree with that?

19 A. Well, I'm not sure I agree with
20 that. I think rise and fall of the chest
21 can be rise and fall of the back, but if
22 you're asking me in general whether it's
23 easier to observe and monitor somebody on
24 their back in terms of how they're doing,
25 I would tend to agree with that.

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1 Q. Well, when you use the expression
2 easier to monitor the patient as to how
3 they're doing, specifically what do you
4 mean by that?

5 A. Well, often times in the
6 Emergency Department, I can see into
7 rooms and see the patient and see if
8 they're awake and, you know, sitting up
9 or talking or how they're doing. I think
10 that is a little bit easier to do when
11 they're sitting up, or at least you can
12 see their face and that kind of thing
13 than if they're on their back -- than if
14 they're prone.

15 Q. Would you agree that one of the
16 factors that you look for on a patient
17 with respect to their condition would be
18 the color of their skin?

19 A. It can be. It depends.

20 Q. All right. Under what
21 circumstances is it helpful to watch the
22 color of the skin of the patient?

23 A. Well, certain types of poisoning
24 might give a certain discoloration to a
25 person's skin, and that could be helpful.

1 We talked a little bit about cyanosis
2 earlier and seeing what's happening
3 there.

4 Q. When you talk about cyanosis,
5 when a patient is not getting enough
6 oxygen, does the patient become pale?
7 Can a patient become pale?

8 MR. MACKEY: Object to form.

9 THE WITNESS: It could. It
10 could be.

11 BY MR. BERGER:

12 Q. What causes the patient to become
13 reddened in color?

14 A. To become reddened?

15 Q. Reddened, yes.

16 A. It could be a lot of different
17 things to become reddened. It could be
18 medication, it could be allergic
19 reaction, it could be a rash or viral
20 exanthem. It could be a lot of different
21 things to become reddened.

22 Q. Can a patient become reddened as
23 a result of lack of oxygen?

24 A. I think that would be less
25 likely.

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1 Q. Well, less likely as compared to
2 allergic reaction, medication, and rash?

3 A. Other causes?

4 Q. Is that what you mean?

5 A. Yes, I think those would be
6 possibly more likely than, you know, a
7 lack of oxygen.

8 Q. Well, I'm not asking about what's
9 likely and what's not likely. Here's my
10 question: Can lack of oxygen cause a
11 patient to become reddened?

12 MR. MC GEADY: Objection.

13 THE WITNESS: Well, lack of
14 oxygen -- lack of oxygen means less
15 oxygen bound to hemoglobin. Once you
16 reach that threshold, as we talked about
17 for cyanosis, you're more likely to have
18 a bluish discoloration than red. Now,
19 there are certain poisonings where --
20 like cyanide poisoning or other types of
21 poisonings where they may be more
22 reddened and they have a lack of oxygen,
23 but that's because the hemoglobin is
24 bound differently, and it kind of gives a
25 reddish coloration.

1 BY MR. BERGER:
2 Q. Well, we're not going to talk
3 about poisoning in this case, this is all
4 about restraint, so we can skip that.
5 When a patient has lack of oxygen,
6 is there a progression from one color to
7 another color?
8 MR. KOERNIG: Objection to
9 form.
10 MR. MC GEADY: Join in that
11 objection.
12 THE WITNESS: Well, again, it
13 depends on what is the cause of lack of
14 oxygen. If you're saying there's a
15 certain amount of deoxygenated
16 hemoglobin, then, you know, there's
17 probably a progression to a bluish
18 discoloration. If you're saying there's
19 lack of oxygen because there's a lack of
20 blood flow, then that would maybe tend
21 towards -- more toward pale coloration.
22 BY MR. BERGER:
23 Q. All right. Why does a lack of --
24 A. But it could be a combination of
25 those two.

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1 Q. All right. If there's a lack of
2 blood flow, does a patient first become
3 pale and then transition to blue in
4 color?
5 A. It could be, yes.
6 Q. If there is a lack of oxygen,
7 does the patient become -- from pink
8 progress to blue? Is that the way that
9 works?
10 A. It can.
11 Q. Is there any other progression
12 when the patient lacks oxygen in the
13 blood?
14 A. Well, there might not be -- well,
15 there might not be any progression. I
16 mean, they may not get to blue. You
17 know, it depends on how much hemoglobin
18 they have. Obviously, if they're anemic
19 or that kind of thing, it may just
20 progress to more pale.
21 Q. Is it true that the term
22 asphyxiation comes from a Greek term
23 meaning without pulse?
24 A. Yes.
25 Q. Can asphyxiation death be caused

1 if respiration is restricted?
2 A. Yes.
3 Q. Can asphyxia death occur if
4 respiration is restricted and then the
5 patient becomes hypoxemic?
6 A. Yes.
7 Q. Can asphyxiation death occur if
8 respiration is restricted due to
9 insufficient oxygen in the blood?
10 A. Say that again?
11 Q. Can asphyxia death occur if
12 respiration is restricted causing
13 insufficient oxygen in the blood?
14 A. Okay, that's a little bit
15 different, but, yes.
16 Q. I'm actually quoting you. Am I
17 doing a good job?
18 A. I thought so.
19 Q. What is intrathoracic pressure?
20 A. It would be the pressure that's
21 inside the chest cavity, in the thoracic
22 cavity.
23 Q. Can increased intrathoracic
24 pressure cause blood vessels on the skin
25 to burst?

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1 A. Yes.
2 Q. Can intrathoracic pressure cause
3 blood vessels on the shoulders to burst?
4 A. Potentially, yes.
5 Q. How does that happen?
6 A. Well, if there's significant
7 intrathoracic pressure, it can cause an
8 inability for blood to flow back towards
9 the heart, to the chest wall, and so
10 there's a backup of blood into the venous
11 system, and that can burst, you know,
12 blood vessels, small vessels, that could
13 be large vessels, dilatation, and that
14 sort of thing.
15 Q. Can compression restraint with
16 force cause an increase in intrathoracic
17 pressure?
18 A. So it depends on how much
19 compressive force there is, but it could
20 cause an increase of intrathoracic
21 pressure.
22 Q. Can intrathoracic pressure cause
23 blood vessels on the neck to burst?
24 A. Yes.
25 Q. What does it look like when the

1 skin on the neck has blood vessels which
2 have burst?
3 A. Well, there can be some what are
4 known as petechiae or these small broken
5 blood vessels -- I mean the small
6 capillaries are broken. It depends on
7 what vessels are damaged. There can be
8 some swelling, there can be -- and so
9 evidence of these -- like I said, these
10 small blood vessels breaking, and that
11 sort of thing.

12 Q. Does compression of the skin
13 while in restraint position prevent
14 adequate venous return of blood?

15 A. Compression of the skin in the
16 prone restraint, is that what you're
17 saying?

18 Q. Yes, yes.

19 A. So I guess it depends on what you
20 mean by compression of the skin. I don't
21 think pinching of the skin, that's called
22 compression -- that would be considered
23 compression of the skin. I don't believe
24 that would cause increased intrathoracic
25 pressure.

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1 Q. Well, we're talking about the
2 compression restraints of the skin. Does
3 that prevent adequate venous return?

4 MR. WALSH: I'll object to
5 the form. You can answer.

6 THE WITNESS: I don't know
7 what you mean by compression restraint of
8 the skin.

9 BY MR. BERGER:

10 Q. All right. Compression, weight
11 on the skin during restraint, can that
12 prevent adequate venous return?

13 MR. WALSH: Objection to
14 form.

15 THE WITNESS: Where of the
16 skin -- I guess, I'm -- what part of the
17 skin are you talking about?

18 BY MR. BERGER:

19 Q. Well, any part of the skin.

20 A. So I would say it depends on what
21 you're talking about in terms of where on
22 the skin you're putting this pressure.
23 You know, again, we have studied this,
24 and I don't think I have that study
25 either, we've looked at cardiac output

1 and cardiac index with weight force on
2 people, and it does not have a
3 significant impact, but, again, it
4 depends on how much weight and where on
5 the skin you're talking about.

6 Q. When you say your study says it
7 doesn't have significant impact, does
8 that mean that compression restraint can
9 have an impact on cardiac output?

10 A. I'm saying that in our studies,
11 at the weight levels that we studied,
12 that it did not seem to have an impact,
13 but, obviously, at some point, if you
14 compress the chest, you know,
15 significantly, I mean, significantly,
16 it's going to have some impact on
17 cardiac -- potentially on this venous
18 return.

19 Q. Are you looping back to the two
20 hundred and twenty-five pound weight
21 study, or is it a different study?

22 A. No.

23 Q. Is it a different study?

24 A. There's another study, yes,
25 different study.

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1 Q. What does that study consist of?

2 A. Let's see -- it was the author,
3 Savosser. It took a look at using weight
4 force on individuals in the prone
5 position and then using echocardiography
6 to measure cardiac output and cardiac
7 index.

8 Q. Do you know if there was a
9 struggle that was part of that study?

10 A. I can't remember if exertion was
11 part of that study.

12 Q. Do you know whether or not that
13 study was limited to any time periods of
14 restraint?

15 A. Well, obviously, they're still
16 not restrained, so there probably was a
17 time limit on the study subjects.

18 Q. You said something funny, I
19 missed it -- hold on.

20 A. They're still not in restraints.

21 Q. Sorry, I'm a little humorless,
22 apparently.

23 Is it true that intrathoracic
24 pressure can cause blood vessels to burst
25 on the skin anywhere on the body?

1 MR. MC GEADY: Objection.
2 You mean increased intrathoracic
3 pressure?

4 MR. BERGER: Yes. Let me
5 rephrase the question.

6 BY MR. BERGER:

7 Q. Can increased intrathoracic
8 pressure cause blood vessels to burst
9 anywhere on the body?

10 A. I think theoretically, that could
11 be the case. I think, you know, the
12 location of these small petechia or small
13 blood vessel bursts are usually closer to
14 where the obstruction in venous return
15 is, so you're more likely to see it in
16 areas that are a little bit closer to
17 where the impact on the venous return is.

18 Q. All right. So that if a patient
19 is being physically restrained by either
20 a nurse or security guard or a doctor by
21 putting weight on the patient, if there
22 is sufficient weight for a sufficient
23 period of time, there can be an increase
24 in intrathecal pressure causing blood
25 vessels to burst in the skin, is that

1 increase in intrathoracic
2 pressure causing blood vessels to
3 burst in the skin, is that true?")

4 MR. WALSH: I'll object to
5 the form.

6 MR. MC GEADY: Join.

7 THE WITNESS: If it's
8 sufficient enough, yes.

9 BY MR. BERGER:

10 Q. If there is increased
11 intrathoracic pressure, and adequate
12 venous return is prevented, can there be
13 a reduction in cardiac output?

14 A. Yes.

15 Q. What is cardiac output?

16 A. In lay terms, it's really the
17 amount of blood that is being pumped out
18 of the heart into the arterial system.

19 Q. And why does increased
20 intrathecal pressure reduce cardiac
21 output? How does that work?

22 MR. MC GEADY: Objection.

23 THE WITNESS: Intrathecal
24 pressure doesn't reduce --

25 BY MR. BERGER:

1 true?

2 MR. MC GEADY: Objection.

3 MR. BERGER: Let me finish
4 the question.

5 MR. MC GEADY: Objection to
6 form. You said intrathecal. Wrong case.

7 MR. BERGER: Intrathoracic
8 pressure.

9 THE WITNESS: Intrathoracic --
10 BY MR. BERGER:

11 Q. Do you want me to repeat that
12 question?

13 A. Can the court -- yes, exactly,
14 please.

15 Q. She's going to repeat the
16 question reading it intrathoracic
17 pressure.

18 (The reporter read back the
19 following question: "All right. So
20 that if a patient is being physically
21 restrained by either a nurse or
22 security guard or a doctor by putting
23 weight on the patient, if there is
24 sufficient weight for a sufficient
25 period of time, there can be an

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1 Q. I'm sorry, let me rephrase the
2 question, Doctor.

3 MR. BERGER: Thank you,
4 David.

5 BY MR. BERGER:

6 Q. If there is an increase in
7 intrathoracic pressure, how does that
8 reduce cardiac output?

9 A. Well, in your hypothetical, you
10 had said enough intrathoracic pressure to
11 reduce venous return. If you reduce
12 venous return, that means there's less
13 blood flowing to the heart, which
14 obviously means that less blood could
15 flow out of the heart reducing cardiac
16 output.

17 Q. What happens when cardiac output
18 is reduced?

19 A. Well, sometimes nothing.
20 Depending on how much reduction in
21 cardiac output occurs. Other times,
22 there can be tissue damage and tissue
23 injury.

24 Q. Can reduced cardiac output cause
25 a dysrhythmia of the heart?

1 A. Yes.
2 Q. Can reduced cardiac output cause
3 pulseless electrical activity of the
4 heart?
5 A. It could.
6 Q. All right. Can we go to your
7 report? You've been delaying this for
8 like a long time now.
9 A. Yes.
10 Q. First of all, does this report
11 contain all of your opinions in this
12 case?
13 A. Yes, I believe so.
14 Q. Is it true that you do not have
15 an opinion as to the cause of death in
16 this case, according to your report?
17 MR. WALSH: I'll object to
18 the form to the extent that it applies,
19 but you can answer.
20 THE WITNESS: Well, I think
21 as to what I wrote in terms of I don't
22 believe that Mr. Sexton's death was
23 caused by positional restraint or
24 compression asphyxia.
25 BY MR. BERGER:

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1 Q. Yeah, I saw that, and I know
2 that's documented, but other than saying
3 this wasn't caused by positional
4 restraint or asphyxia, is it true that
5 you don't have any other opinion as to
6 the cause of death in this case, as
7 evidenced by your report?
8 A. That was the question I was
9 retained to address. Obviously, I have
10 some thoughts on his cause of death, you
11 know, but in terms of what I will be -- I
12 was specifically asked to address, it was
13 that question.
14 Q. All right. So is it true that
15 your report does not have another cause
16 of death or a cause of death in this
17 case, but merely has an opinion as what
18 did not cause his death?
19 A. Correct.
20 Q. Now, in your report, looking at
21 page two, first full paragraph, you
22 write, During his hospital course, Mr.
23 Sexton became increasingly agitated and
24 confused, exhibiting signs and symptoms
25 of severe alcohol withdrawal.

1 What were the signs and symptoms
2 of severe alcohol withdrawal exhibited by
3 Mr. Sexton that you're referring to?
4 A. Well, I think he became confused
5 and was agitated. I think those are -- I
6 don't have the hospital records in front
7 of me, but I'd have to look through them
8 again, but those can definitely be signs
9 of, you know, worsening alcohol
10 withdrawal.
11 Q. Is a patient being uncooperative
12 also a sign of alcohol withdrawal?
13 A. It could be.
14 Q. Is a patient being belligerent
15 also a sign of alcohol withdrawal?
16 A. It could be.
17 Q. In this case, where you write
18 that a security Code Grey was called
19 because he became uncooperative and
20 belligerent with hospital staff, do you
21 have an opinion that when uncooperative
22 and belligerent in this case with
23 hospital staff, that was a sign of
24 alcohol withdrawal?
25 A. It could be. I think there were

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1 -- you know, he had other conditions --
2 you know, he had the pancreatitis going
3 on, you know, but in terms of his
4 withdrawal, it could be a sign of that,
5 that he's becoming increasingly confused
6 and altered.
7 Q. In fact, you're aware that at
8 midnight, he was talking about being in a
9 hotel and wanting to leave the hotel, is
10 that right?
11 A. I believe that there is, yes,
12 some documentation to that effect.
13 Q. Would a patient thinking that
14 he's in a hotel, not be oriented as to
15 time and place?
16 A. Well, he's not oriented to place.
17 I don't recall if they asked him time.
18 Q. Would a patient who thinks he's
19 in a hotel and wants to leave the hotel
20 like Mr. Sexton, be considered to be
21 hallucinating as to where he was?
22 A. He could be considered
23 hallucinating.
24 Q. You write next in your report,
25 Additional medications of Haloperidol and

1 Lorazepam were administered parenterally.
2 What does that mean, parenterally?
3 A. That means either administered
4 either through an IV or intramuscular,
5 basically by a shot of some kind.
6 Q. Haloperidol is the same as
7 Haldol?
8 A. Yes.
9 Q. I assume that you've used Haldol
10 in your hospital and have experience with
11 Haldol?
12 A. Yes.
13 Q. What does Haldol do to the
14 patient?
15 A. Well, it's really used as an
16 antipsychotic medication for individuals
17 that may be agitated and showing signs of
18 psychosis.
19 Q. Does Haldol have any side
20 effects?
21 A. It does. Like many
22 antipsychotics, it can have side effects.
23 Q. Can Haldol depress breathing?
24 A. That would be extremely rare.
25 Haloperidol is generally not really

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1 considered one that would be at risk for
2 causing respiratory depression.
3 Q. Can Haldol depress breathing?
4 MR. WALSH: Objection to
5 form.
6 THE WITNESS: I think it
7 would be fairly rare for Haloperidol to
8 do that.
9 BY MR. BERGER:
10 Q. Can Haldol cause respiratory
11 failure?
12 A. Again, I think that would be very
13 rare.
14 Q. Can Haldol cause drowsiness?
15 A. It does -- it can make
16 individuals calm down, and depending on
17 how you're using the term drowsy, it can
18 calm them down and make them less
19 agitated.
20 Q. Can Haldol, therefore, reduce the
21 heart rate of a patient?
22 A. Well, if it calms the individual
23 down, it's likely that they'll be
24 exerting themselves less, and their heart
25 rate would come down.

1 Q. Any other side effects of Haldol
2 with this patient in the administration
3 of Haldol?
4 A. With this specific patient, Mr.
5 Sexton?
6 Q. Yes, yes.
7 A. Weighed by side effects?
8 Q. Yes.
9 A. Well, I think there's some
10 intended effects of the Haloperidol to
11 calm an individual. I don't see really
12 any documentation of adverse side effects
13 from the Haloperidol necessarily.
14 Q. Do you believe that the Haldol in
15 this case did calm this patient down, Mr.
16 Sexton?
17 A. I -- I think that the timing is a
18 pretty brief time. Now, Haloperidol, you
19 know, has a fairly fast onset, but they
20 also administered it intramuscularly, so
21 I think that the timing is a little bit
22 quick for Haloperidol to -- particularly
23 the last shot to have had a significant
24 impact on him. I think he's described as
25 really becoming much less agitated, you

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1 know, in a very short period of time
2 after the last dose of the Haloperidol.
3 Q. If the Haldol was given to him at
4 about -- hold on a second -- bear with
5 me, Doctor -- how long -- are you
6 reviewing something I want to know about?
7 MR. WALSH: Yes, he's just
8 looking at the medication administration
9 record.
10 MR. BERGER: No problem. I
11 just need to know.
12 MR. WALSH: Yes, understood.
13 BY MR. BERGER:
14 Q. Well, how long does Haldol --
15 five milligrams of Haldol injected I.M.
16 last?
17 A. How long does it last?
18 Q. Yes.
19 A. It can be a few hours, I mean, in
20 terms of lasting, because it's -- you
21 know, again, it depends on the absorption
22 through the -- wherever it's injected.
23 It's not administered IV, so I.M., it
24 depends on, again, absorption from there.
25 Q. All right. In this case, Haldol,

1 five milligrams I.M. was given at
2 approximately 10:40 p.m. on July 14th.
3 Would that Haldol still be on board at
4 12:15 a.m., less than two hours later?
5 MR. HALPIN: Objection to
6 form.

7 MR. MC GEADY: I'll join in
8 that objection.

9 THE WITNESS: It could be. I
10 mean, again, it depends on the absorption
11 and then the size of the individual,
12 obviously, and whether that's a big
13 enough dose to sort of continue to have
14 an effect, or to have an effect, I should
15 say.

16 BY MR. BERGER:

17 Q. If the Haldol was given at 10:40
18 p.m., and Mr. Sexton went to sleep, would
19 you agree that the Haldol had an effect
20 in calming him down?

21 A. Potentially, yes.

22 Q. If at midnight, he was still
23 sleeping and the staff woke him up to
24 give him medication, would you agree that
25 the Haldol was still working at midnight

1 breathing?

2 A. I'm not sure what you mean by
3 difficulty in breathing. It is a
4 respiratory depressant, so it can depress
5 breathing or respiratory function, but
6 I'm not sure what you mean by difficulty.

7 Q. All right. I was reading about
8 Ativan, of course, on line. With that
9 caveat, here's my question: Is one of
10 the most important risks of Ativan
11 respiratory depression?

12 A. Yes.

13 MR. MC GEADY: Objection.
14 BY MR. BERGER:

15 Q. Can Ativan cause respiratory
16 failure?

17 A. Well, if you're saying can Ativan
18 -- an overdose of Ativan cause somebody
19 to stop breathing and go into respiratory
20 failure, yes.

21 Q. Can -- you're talking about an
22 overdose, but can -- there's a lot of
23 overdoses that can cause respiratory
24 failure, specifically --

25 A. Yes.

1 if they had to wake him up?

2 A. Well, again, it depends on what
3 else he may have received and whether or
4 not those medications were having more of
5 an effect than others in terms of how
6 he's doing, so just -- I mean, it
7 depends.

8 Q. All right. Good point. One
9 milligram of Ativan was given at 10:58
10 p.m. What is Ativan?

11 A. It's a benzodiazepine.

12 Q. What does Ativan do?

13 A. It basically is a medication that
14 tends to -- can be used for -- well,
15 relaxation in terms of lay terms, but
16 it's -- you know, it's analogous to
17 Valium or --

18 Q. Can Ativan cause drowsiness?

19 A. Yes.

20 Q. Can Ativan cause depressed
21 breathing?

22 A. Yes.

23 Q. Can Ativan cause hypotension?

24 A. Yes.

25 Q. Can Ativan cause difficulty in

1 Q. -- and can Ativan, given in
2 therapeutic doses cause respiratory
3 failure?

4 A. Well, by definition, therapeutic
5 doses means you're not giving it at toxic
6 levels, so, you know, therapeutic
7 means -- you know, so the answer would be
8 no by definition, I think.

9 Q. All right, I got it. I got it.
10 Can Ativan prescribed within the dosages
11 that are considered to be proper and
12 adequate dosages cause respiratory
13 failure?

14 A. Well, it depends on who -- the
15 size of the individual who's receiving
16 the medication, how frequently, that sort
17 of thing, how it's administered. So
18 there's always a risk of respiratory
19 compromise from benzodiazepines like
20 Ativan.

21 Q. And also, when reading about
22 Ativan, is it true that monitoring the
23 breathing closely is important for
24 determining whether or not there's a risk
25 of respiratory depression?

1 MR. WALSH: I'll object to
2 the form and also object to the
3 substance, again, because I think this is
4 moving into standard of care, and he's
5 not been qualified or offered for that
6 purpose in this case.

7 MR. BERGER: Understood.

8 MR. WALSH: So I'll object to
9 it and move to strike it. You can
10 answer.

11 THE WITNESS: So, any time
12 you give a medication that has a
13 potential to depress respiratory
14 function, it is important to monitor
15 respiratory function.

16 BY MR. BERGER:

17 Q. So how long does IV Ativan have
18 effect in the body?

19 A. Well, again, depends on a
20 particular individual, on their renal
21 clearance, their liver function, how long
22 the medication would stay in their
23 system, but Ativan is one of the longer
24 acting benzodiazepines, and so it could
25 be hours.

1 arms were underneath him it sounds like,
2 and then they were able to administer
3 medications when he was restrained in the
4 prone position.

5 Q. Did Mr. Sexton hit anybody at
6 that time?

7 MR. MC GEADY: Object. At
8 what time?

9 BY MR. BERGER:

10 Q. Just so we're clear, after
11 midnight, did Mr. Sexton hit anybody,
12 according to you and the struggle?

13 A. I don't recall specifically. I
14 do recall some descriptions of kicking.
15 I can't remember that struck anybody.

16 Q. All right. So struck and kicking
17 may go together, let's refine this a
18 little bit. Did Mr. -- after midnight,
19 did Mr. Sexton hit anybody with his hands
20 or his arms or his fists?

21 A. I don't recall specifically after
22 midnight.

23 Q. After midnight, did Mr. Sexton
24 kick anybody and connect?

25 A. It's possible. Again, I don't

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1 (Discussion off the record.)

2 BY MR. BERGER:

3 Q. All right. After the sentence
4 about Haloperidol and Lorazepam, you go
5 on to say in the next sentence, A
6 struggle ensued with nursing and hospital
7 security staff, and Mr. Sexton was
8 restrained in a prone position on a
9 hospital gurney.

10 What was your understanding of the
11 struggle?

12 A. Well, my understanding was, you
13 know, there was a nurse, and anywhere
14 from one to three security guards,
15 depending on the time, who were
16 struggling sort of to get him -- well, he
17 was on the gurney, but to protect his IV,
18 because he looked like he was going to
19 lose that. At some point, he or they --
20 he was on his prone position, but was
21 sort of lifting up on his arms and legs a
22 little bit, and then they were able to
23 get control of his ankles and get him
24 more proned in a position, but it's
25 unclear -- not unclear, but at times, his

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1 have the hospital records in front of me,
2 but I think he was described as kicking,
3 and there was some concern about him
4 striking others, but I don't remember
5 specifically whether it happened or not.

6 Q. What do you know about the
7 hospital policy at Cape Regional with
8 respect to restraining patients?

9 A. I did not really review that
10 specific policy. I was not -- it was not
11 germane really to the question that I was
12 being asked to address.

13 Q. When Mr. Sexton was restrained in
14 the prone position, that means he was
15 restrained on his chest, true?

16 A. Yes.

17 Q. You mentioned the location of his
18 arms. Isn't it true that his arms were
19 tucked under his chest?

20 MR. DE LAURENTIS: Object to
21 the form.

22 MR. WALSH: I'll object to
23 the form in terms of the timing of that.
24 You can answer.

25 THE WITNESS: I think it's

1 been described at times he had them under
2 himself, and then was to the side at some
3 point, too.

4 BY MR. BERGER:

5 Q. When he was first restrained on
6 his chest, would you agree that his arms
7 were tucked under his body and under his
8 chest?

9 MR. WALSH: Object to the
10 form. You can answer.

11 THE WITNESS: I can't
12 remember one or two arms, but I think one
13 of the arms at least was described as
14 being sort of in between the gurney and
15 his body at that point.

16 BY MR. BERGER:

17 Q. Were you aware that one of his
18 arms was moved by one of the security
19 guards and held in place as to protect
20 the IV?

21 A. I recall reading that in some of
22 the materials I saw.

23 Q. All right. Do you know whether
24 the IV was in the left arm or the right
25 arm?

1 that a patient who's in the prone
2 position should be moved to the least
3 restrictive position if the patient stops
4 struggling?

5 MR. WALSH: I'll object to
6 the question again, because I think now
7 this is directly into standard of care,
8 and I'm concerned about this question,
9 because I just don't see how it is
10 relevant to his causality opinion, so
11 this question I think I'm going to direct
12 him not to answer, because I think it's
13 totally beyond the scope of the reason he
14 was retained.

15 MR. BERGER: Understood.

16 MR. WALSH: Unless you can
17 give me some basis that makes it relevant
18 to his causation opinion.

19 MR. BERGER: Let me think
20 about it.

21 MR. WALSH: I just don't see
22 it.

23 BY MR. BERGER:

24 Q. Was it your understanding at the
25 time that the Haldol was administered,

1 A. I believe it was in the left.

2 Q. Do you know whether when the
3 security guard who was responsible to
4 protect the IV came into the room and
5 immediately untucked his left arm to
6 outside of his body to protect the IV?

7 MR. DE LAURENTIS: Object to
8 the form.

9 THE WITNESS: You know, I
10 don't recall that specifically.

11 BY MR. BERGER:

12 Q. All right. Do you know what kind
13 of force was used by the security guard
14 who moved Mr. Sexton's arm from under his
15 chest to away from his chest?

16 MR. MC GEADY: Object to the
17 form.

18 MR. DE LAURENTIS: Object to
19 the form.

20 THE WITNESS: I believe he
21 described holding the arm at some point.
22 I don't believe he described using a lot
23 of compressive pressure.

24 BY MR. BERGER:

25 Q. Do you agree with the concept

1 that Mr. Sexton was still moving his
2 arms?

3 MR. MC GEADY: Just
4 objection. You mean after midnight,
5 right, Mike?

6 MR. BERGER: After midnight,
7 yes, thank you.

8 MR. WALSH: At 12:30?

9 THE WITNESS: I believe he
10 was still described as struggling. I
11 can't remember specifically whether they
12 said he was moving his arms or not.

13 BY MR. BERGER:

14 Q. Do you know after midnight, at
15 the time that Haldol was administered,
16 whether or not he was still moving his
17 legs?

18 A. I would answer it the same, I
19 believe he's described as still
20 struggling. I don't remember
21 specifically anyone saying he's moving
22 his legs.

23 Q. What is your understanding of the
24 struggling that he was doing at the time
25 he was administered Haldol and Ativan?

1 A. I believe there's some general
2 descriptions of movement and
3 vocalization. I can't -- and I don't
4 have the hospital records in front of me
5 as to what specific items were described
6 at that time.
7 Q. Do you know whether or not he was
8 moving his right leg at the time the
9 Haldol was administered?
10 A. I don't recall specifically.
11 Q. Do you know as to whether or not
12 he was moving his left leg at the time
13 the Haldol was administered?
14 A. I don't recall specifically.
15 Q. Do you know if he was moving his
16 left arm where the IV was at the time the
17 Haldol was administered?
18 A. I don't recall specifically.
19 Q. Do you know where the Haldol was
20 administered on his body I.M.,
21 intramuscularly?
22 A. I believe it was his buttock. I
23 can't recall if it was left or right.
24 Q. Do you know whether or not the
25 nurse had any difficulty in administering

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1 Haldol in his buttocks?
2 MR. WALSH: I'll object to
3 the form, the term difficulty. You can
4 answer.
5 THE WITNESS: Yeah, I'm not
6 sure what you mean by difficulty. I
7 think, you know, part of the reason I
8 believe they were trying to restrain him
9 was to administer medication, so that
10 would suggest that they felt that it was
11 going to be challenging to get medication
12 administered without potentially putting
13 themselves or Mr. Sexton at some risk.
14 BY MR. BERGER:
15 Q. With all due respect, I don't
16 really need a suggestion, I'm just trying
17 to understand what your understanding of
18 the facts are, so at the time that Haldol
19 was administered in his buttocks, do you
20 know whether or not there was any
21 difficulty by the nurse in performing
22 that task?
23 MR. KOERNIG: Objection.
24 MR. WALSH: Object to the
25 form, as well.

1 THE WITNESS: So specifically
2 at the time of administration?
3 BY MR. BERGER:
4 Q. Yes.
5 A. When she actually administered
6 it?
7 Q. Yes.
8 A. Then I don't think there was
9 anything -- a significant difficulty at
10 that point in time.
11 Q. Do you know at the time the
12 Haldol was administered, where Mr.
13 Sexton's right arm was?
14 A. I believe it was to the side at
15 that point, but, again, I don't have the
16 records in front of me, so I'd have to
17 check on that.
18 Q. When you testify you believe it
19 was to the side, do you mean to his side?
20 A. Yes.
21 Q. Was his right arm being
22 restrained at the time the Haldol was
23 administered?
24 A. Well, actually, let me check
25 that. I think his upper extremity, the

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1 -- the nurse had described that she had
2 some control of that. Whether it was the
3 distal arm, I'm not sure.
4 Q. What do you mean by distal arm?
5 A. Like the hand as opposed to the
6 upper part of the right upper extremity.
7 Q. Do you know which nurse was
8 restraining his right arm at the time
9 Haldol was administered?
10 MR. KOERNIG: Objection.
11 THE WITNESS: I think it was
12 Phillips.
13 BY MR. BERGER:
14 Q. Do you know how she was
15 restraining his right arm?
16 A. Well, she described it as putting
17 pressure, I think, against that arm in
18 some way.
19 Q. What part of her body was
20 applying pressure to his right arm at the
21 time Haldol was administered?
22 A. I think it was the side of her
23 body, as well, as I recall.
24 Q. Was the side of her body on any
25 part of Mr. Sexton's body?

1 MR. WALSH: I'll object to
2 the term on. You can answer.
3 THE WITNESS: Well, I think
4 she was making contact with his arm still
5 with her body.
6 BY MR. BERGER:
7 Q. All right. What part of her body
8 was she using to make contact with Mr.
9 Sexton?
10 A. I can't recall specifically which
11 side of her body. I believe it was her
12 right side, as I recall.
13 Q. Was Nurse Phillips' body on any
14 other part of Mr. Sexton other than and
15 in addition to his arm?
16 MR. WALSH: At the time of
17 the Haldol administration?
18 MR. BERGER: At the time of
19 the Haldol administration.
20 MR. WALSH: Okay.
21 THE WITNESS: I believe that
22 -- I don't believe -- I think that was
23 the main part of her body that was making
24 contact with Mr. Sexton.
25 BY MR. BERGER:

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1 Q. His arm?
2 MR. MC GEADY: Objection.
3 THE WITNESS: Yes, her right
4 side and with his right arm.
5 BY MR. BERGER:
6 Q. Do you know what time the
7 restraints started in the prone position?
8 A. It was after midnight. I don't
9 have the exact time, as I recall. I
10 don't have --
11 Q. When -- I'm sorry.
12 A. Go ahead.
13 Q. When the restraint started, was
14 he restrained in the prone position on
15 his chest?
16 A. Well, I think when they began to
17 interact, I believe he was not in the
18 prone position at that point.
19 Q. How did he become in the prone
20 position?
21 A. Well, I think it's reported that
22 he flipped over and sort of was on his
23 arms and legs.
24 Q. And then how did he end up in the
25 prone position on his chest?

1 A. Well, I think Security secured
2 his ankles, and, you know, basically he
3 was laid down.
4 Q. Was there any force being applied
5 to Mr. Sexton by either the security
6 guards and/or the nurses?
7 MR. MC GEADY: Objection.
8 BY MR. BERGER:
9 Q. In the prone position.
10 MR. WALSH: Objection to
11 form, the term force. You can answer.
12 THE WITNESS: I think they
13 were using force to hold his ankles and
14 his upper extremities.
15 BY MR. BERGER:
16 Q. Was any force applied to Mr.
17 Sexton's back, according to the
18 testimony?
19 A. Well, I think Nurse Phillips
20 described putting her left arm over his
21 back to secure his left arm. I don't
22 know, it does not seem there was a
23 significant amount of force, but you
24 probably -- to have your arm across
25 holding the left arm, you might have had

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1 to put some force there.
2 Q. At the time that that occurred,
3 Nurse Phillips was on the right side of
4 the bed, is that true?
5 A. Well, from whose angle, I guess
6 is the question, right, because, you
7 know, depending on which side -- where
8 you're looking, right, the right side of
9 the gurney -- the right side of the bed
10 could be one side versus the other,
11 right?
12 Q. I'll rephrase the question.
13 Would you agree that at the time Nurse
14 Phillips reached over to secure Mr.
15 Sexton's left arm, she was on his right
16 side?
17 A. Yes.
18 Q. Would you agree that she would
19 have had to have leaned on Mr. Sexton to
20 some extent to extend her left arm to
21 secure his left arm if she's on the right
22 side of the bed?
23 MR. WALSH: I'll object to
24 the form. You can answer.
25 THE WITNESS: Like I said, I

1 think to secure his left arm, you may
2 have had to put some force, but it would
3 be difficult to put a lot of force on the
4 back and secure his left arm at the same
5 time.

6 BY MR. BERGER:

7 Q. Would that be because the force
8 is required to secure his left arm?

9 A. Yes, part of why.

10 Q. Any other reason?

11 A. Well, again, depending on how the
12 arm is over the back, it could be
13 difficult to actually put any force on
14 the arm and still put force on the back
15 at the same time.

16 Q. Well, it wouldn't be difficult to
17 do so if she had her elbow on his back
18 and her forearm on his back and her left
19 hand securing his left arm, true?

20 MR. WALSH: I'll object to
21 the form and the lack of any foundation.
22 You can answer. Is this a hypothetical?

23 MR. BERGER: Well, he just
24 said it would be difficult, so I'm just
25 trying to explore that.

1 question. You can answer.

2 THE WITNESS: Well, I think
3 she says that, you know, her arm was
4 going over his back to hold his left arm.

5 BY MR. BERGER:

6 Q. Do you know if over his back
7 means on his back, in the air on his
8 back, do you know?

9 MR. WALSH: Objection to
10 form. You can answer.

11 THE WITNESS: It was over. I
12 would assume it couldn't quite be just
13 air, because he's not a small guy, and I
14 don't think her arm is long enough to be
15 up in the air and hold his arm down, so I
16 would assume that she had some contact
17 with his back with her arm.

18 BY MR. BERGER:

19 Q. Do you know who was holding his
20 left leg? Who was --

21 A. It was one of the security --

22 Q. Go ahead.

23 A. You know, I don't -- I know the
24 names of security guards, but to be
25 honest with you, which one was on which

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1 MR. WALSH: All right. I'll
2 object to the form and lack of
3 foundation. You can answer.

4 THE WITNESS: Well, I think
5 that you can -- there's only so much
6 force you can exert with one of your
7 arms, right? And the question is where
8 are you going to exert that force. Is it
9 going to be holding the hand, holding the
10 other extremity, is it going to be
11 putting it, you know, on top of his back,
12 hypothetically? Where are you going to
13 put the force of your arm, right? You're
14 only so strong in your arm --

15 Q. Well --

16 A. -- so I think --

17 Q. The fact remains you really don't
18 know where her arm was at that time, is
19 that true?

20 MR. WALSH: Object to the
21 form, in terms of saying you really don't
22 know. I mean, obviously, he's basing his
23 opinion in part upon the factual
24 testimony that was elicited in the case,
25 so I'll object to the way you phrased the

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1 leg, it would escape me. Young or Shaw,
2 I think.

3 Q. Who was on his right leg?

4 A. I'm not sure which was was on the
5 right leg.

6 Q. For what period of time was Mr.
7 Sexton restrained by the security guards
8 and the nurse in the prone position on
9 his chest?

10 MR. KOERNIG: Objection to
11 form.

12 MR. MC GEADY: Join in that
13 objection.

14 MR. WALSH: I'll object to
15 the form, as well. You can answer.

16 THE WITNESS: So I think, you
17 know, the overall period of the struggle
18 may have been ten to fifteen minutes or
19 so, as I recall. At what point he was
20 off his arms and legs and restrained on
21 his chest and belly is not clear. That
22 would be less -- a less amount of time.

23 BY MR. BERGER:

24 Q. Would you agree that once he was
25 restrained on his chest, he was

1 continually restrained on his chest until
2 he was turned over and found to be
3 nonresponsive?

4 MR. KOERNIG: Objection to
5 form.

6 MR. MC GEADY: Join in that
7 objection.

8 THE WITNESS: I believe -- I
9 don't think -- well, they described him
10 as pushing up against at that time, as
11 well, so he might not have been fully
12 completely continuously on his chest and
13 abdomen, because they did describe him
14 sort of pushing up at different times.

15 BY MR. BERGER:

16 Q. What was your understanding of
17 the location of his arms when he was
18 pushing up?

19 A. Either just underneath his torso
20 or on the side as he was pushing up.

21 Q. Is it your understanding he was
22 pushing up with both arms?

23 A. I can't say for sure on that.

24 Q. Do you know how many times he
25 pushed up?

1 his left arm was extended out when the IV
2 was being protected?

3 A. I'm not sure about that exactly
4 when he's pushing up. I don't think it's
5 absolutely clear where his arms -- his
6 left arm was at that time.

7 Q. And at the time that his left arm
8 was extended out by the security guard
9 securing the IV, is it your testimony
10 that he was trying to push up at that
11 time?

12 A. I'd have to take a look again. I
13 think, you know, it was either close to
14 that time or just before that.

15 Q. Well, can we agree that it would
16 be difficult for him to push up if the
17 nurse is pinning his right arm, and the
18 security guard has his left arm extended
19 out?

20 MR. MC GEADY: Objection.

21 BY MR. BERGER:

22 Q. Can we agree to that?

23 MR. WALSH: Objection. I'll
24 object to the form. You can answer.

25 THE WITNESS: I think, you

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1 A. No, not specifically.

2 Q. Do you know how many inches off
3 the bed that his chest went when he
4 pushed up?

5 A. Not specifically.

6 Q. Was force used to push him down
7 when he pushed up by any of the security
8 people and/or the nurse?

9 MR. MC GEADY: Objection.

10 THE WITNESS: I don't recall
11 that specifically. I think they still
12 had control of his extremities.

13 BY MR. BERGER:

14 Q. Do you know whether or not Nurse
15 Phillips used any force to ensure that he
16 did not push up?

17 A. I don't recall her stating that
18 specifically. I think she had some
19 pressure on his right side of his right
20 upper extremity, and she had her arm
21 trying to hold the left arm. I don't
22 recall if she specifically said she used
23 force to push him down.

24 Q. Is it your testimony that he was
25 pushing up with his left at the time that

1 know, there's still -- she has, as I
2 recall, a control -- she's putting
3 pressure on the upper arm of the right
4 side, so he could potentially push up
5 with that arm still.

6 BY MR. BERGER:

7 Q. Can you tell me how he'd be able
8 to push up with that arm if she has
9 control and has her body weight against
10 his right arm?

11 A. Well, again, she described
12 pushing against that arm, not necessarily
13 down on that arm. He could either kind
14 of push and roll a little bit or just get
15 part of his chest up.

16 Q. Which part of his chest would he
17 be getting up under that scenario?

18 A. Potentially, his right side.

19 Q. I guess I'm trying to
20 understand --

21 A. And I think -- you know, go
22 ahead.

23 Q. Yeah, I'm trying to understand
24 how you're visualizing this. How would
25 Mr. Sexton be able to push up on his

1 right side if his arm is being controlled
2 and secured by Nurse Phillips, and his
3 left arm is being extended by the other
4 security guard, Mr. Nielsen?
5 MR. MC GEADY: Objection.
6 MR. WALSH: I'll object to
7 the question, as well.
8 THE WITNESS: So I think, as
9 she describes it, her pressure is really
10 on the upper arm, right, and the lower
11 part of his arm could be pushing up, or
12 at least rolling a little bit so that his
13 right chest could come up, and I think
14 there's some description of his moving
15 his head around quite a bit, too, which
16 would all suggest that he's kind of
17 lifting up a little bit to move his head
18 around, as well.
19 BY MR. BERGER:
20 Q. If he's moving his head around,
21 is he hyperflexing his head?
22 A. Are you saying hyperflexing his
23 neck or his head?
24 Q. Well, that's what I'm asking --
25 A. I'm not sure how you hyperflex

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1 the neck. I think if you're suggesting
2 he's extending his head on -- his neck to
3 lift his head, then yes, possibly.
4 Q. All right. Is that the same
5 hyperflexion movement you said that can
6 lead to an obstruction of the airway?
7 MR. MC GEADY: Objection.
8 THE WITNESS: No.
9 BY MR. BERGER:
10 Q. What is the difference?
11 A. Well, I think hyperflexion is
12 bending your neck toward your chin,
13 right, so he would not be doing that to
14 move his head around, right? He'd be
15 extending his neck to move his head
16 around.
17 Q. Oh, I think I misunderstood you,
18 I'm sorry.
19 A. I may have misspoke, so --
20 Q. Well, it's probably I
21 misunderstood. I apologize.
22 Who testified that he was moving
23 his head around?
24 A. I can't recall specifically. It
25 may have been Phillips. I can't recall

1 who else may have testified to that, but
2 I recall seeing that.
3 Q. Do you know when he was moving
4 his head around?
5 A. Sometime during the struggle. I
6 don't think it's exactly clear what
7 minute he may have been moving his head
8 around or his face around.
9 Q. Would it be accurate to say at
10 the time he was discovered to be
11 unresponsive and blue, that he wasn't
12 moving his head around?
13 A. I think that would be fair.
14 Q. Would you agree that the
15 restraint of Mr. Sexton by the security
16 guard and Nurse Phillips lasted until
17 about 12:37 when the code was called?
18 MR. KOERNIG: Objection to
19 form.
20 THE WITNESS: I think it's
21 pretty close to that time. I think the
22 restraint continued until he was
23 essentially turned over and found to be
24 unresponsive.
25 BY MR. BERGER:

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1 Q. Why was he turned over at that
2 time?
3 A. I can't remember. The nursing
4 supervisor came and said we should turn
5 him over. I think he had stopped
6 struggling, and I'm not sure why, but it
7 would be a reasonable thing to do at that
8 point once he stopped resisting.
9 Q. In your report, after the term
10 hospital gurney, you write --
11 A. I'm sorry, which page and
12 paragraph?
13 Q. I'm sorry, page two, first full
14 paragraph. About two-thirds of the way
15 down.
16 A. Okay.
17 Q. You write, quote, Within a brief
18 time, staff noted he was unresponsive and
19 in cardiopulmonary arrest.
20 First of all, what does
21 cardiopulmonary arrest mean in this case?
22 A. It really means cessation of, you
23 know, functional cardiac -- a functional
24 cardiac rhythm and respiratory function.
25 Q. And he was found to be in

1 pulseless electrical activity, is that
2 true?

3 A. Yes.

4 Q. What is that?

5 A. Well, it suggests that there's
6 some electric activity of the heart but
7 no -- essentially no movement of the
8 heart.

9 Q. Can the cardiopulmonary arrest
10 which Mr. Sexton suffered be caused by
11 lack of oxygen?

12 MR. WALSH: Object to the
13 form of the question. You can answer.

14 THE WITNESS: Well, again,
15 you probably should be more specific in
16 terms of lack of oxygen. It can be due
17 to a number of reasons why somebody would
18 lack oxygen, including blood flow to the
19 heart that could set off a cardiac -- you
20 know, a PEA or that kind of thing, but,
21 yes, that could be a cause of PEA in
22 general.

23 BY MR. BERGER:

24 Q. When you write, Within a brief
25 time, staff noted he was unresponsive,

1 THE WITNESS: I can't recall
2 specifically if she was just observing.
3 I just don't recall what she testified
4 to.

5 BY MR. BERGER:

6 Q. Would you agree that Mr. Sexton
7 was restrained with force in the prone
8 position on his chest up until a minute
9 before he was rolled over and found to be
10 unresponsive?

11 MR. KOERNIG: Objection.

12 MR. MC GEADY: Objection.

13 MR. WALSH: I'll object to
14 the form. You can answer.

15 THE WITNESS: Yes.

16 By MR. BERGER:

17 Q. Did you see any vital signs taken
18 by hospital personnel from 12:15 until
19 12:37 a.m.?

20 A. I don't recall the specific times
21 the vital signs were taken. I'd have to
22 look back again.

23 Q. When was the first time that
24 Nurse Phillips realized that Mr. Sexton
25 had turned blue and purple?

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1 did you mean within a brief time of the
2 administration of Haldol and Ativan, or
3 what did you mean?

4 A. I think within a brief time of
5 him being restrained in the prone
6 position.

7 Q. What is your definition of within
8 a brief time he was noted to be
9 unresponsive?

10 A. Well, I think -- when he was
11 noted to stop struggling, I think that's
12 when he was flipped over and noted, so
13 less than a minute probably after he
14 stopped struggling that they noticed he
15 was in cardiac arrest.

16 Q. Who testified that he was
17 struggling up until that last minute?

18 A. I think I recall a couple of -- I
19 think maybe the nurse did. I can't
20 recall if one of the security guards, as
21 well, did.

22 Q. What was Nurse Ratti doing during
23 the time period after the administration
24 of Haldol and Ativan?

25 MR. MC GEADY: Objection.

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1 MR. MC GEADY: Objection.

2 THE WITNESS: I don't recall
3 if it was the nurse, Nurse Phillips, or
4 another staff member, but I think it was
5 right around the time that he was turned
6 over.

7 BY MR. BERGER:

8 Q. Is it your understanding of the
9 testimony that Mr. Sexton was struggling
10 up until one minute before he was turned
11 over?

12 A. Yes.

13 Q. Was it your understanding that he
14 was moving his legs up until one minute
15 before he was turned over?

16 A. Again, I think he was described
17 as moving. I can't recall exactly if
18 they said he was moving his right leg or
19 left leg or that sort of thing.

20 Q. Would it be your understanding
21 that he was kicking his legs up until one
22 minute before he was turned over?

23 A. Again, I think he's described as
24 kicking. I can't remember if it was
25 specifically up until one minute before

1 he was turned over.
2 Q. What I'm trying to get is, like,
3 your understanding of the struggle, so
4 let me go through this. Was it your
5 understanding that he was moving his arms
6 up until one minute before he was turned
7 over?
8 A. I think he's described as
9 struggling and moving. I can't recall if
10 specifically this extremity or that
11 extremity up until a minute before he was
12 turned over.
13 Q. Can you describe generally what
14 your understanding is of the way he was
15 struggling up until one minute before he
16 was turned over?
17 A. I think he's described as moving.
18 I can't remember specifically what
19 extremities while he was being, you know,
20 restrained. He may have been moving his
21 head, as well, at that time. I think
22 he's described as vocalizing up until he
23 becomes unresponsive.
24 Q. Let me ask you about the
25 vocalizing. What was he saying from

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1 12:15 to 12:37?
2 A. I don't recall exactly what the
3 words -- that Nurse Phillips said he said
4 some words, like get off him or something
5 like that, I'm not sure. Others describe
6 him as moaning and grunting.
7 Q. Do you know whether or not Nurse
8 Ratti heard any words from Mr. Sexton
9 during that period of time?
10 A. I can't recall what she may have
11 said.
12 Q. Did Mr. Nielsen hear any words
13 from Mr. Sexton during that period of
14 time, 12:15 to 12:37?
15 MR. DE LAURENTIS: Object to
16 the form.
17 THE WITNESS: I can't recall
18 which security guards did say he was
19 vocalizing, I just don't remember in
20 terms of what he specifically said or
21 not.
22 BY MR. BERGER:
23 Q. Let me finish. Did Mr. Young
24 hear any words from 12:15 to 12:37?
25 MR. MACKEY: I'm going to

1 object to the form as to the use of the
2 word words.
3 BY MR. BERGER:
4 Q. Can you answer that question?
5 MR. WALSH: You can answer.
6 THE WITNESS: I don't recall.
7 You were talking about Young or Shaw?
8 BY MR. BERGER:
9 Q. Shaw at that point.
10 A. I don't recall his specific
11 testimony.
12 Q. Is gasping the same as breathing?
13 A. Well, gasping can be indicative
14 of respiratory distress or -- so it's not
15 -- if you're saying breathing is normal,
16 I'd say gasping is more indicative of
17 potential respiratory distress.
18 Q. Is there a difference between
19 gasping and hypoventilating?
20 A. Yeah. I think there is a
21 difference. I think gasping is more of a
22 lay term. Hypoventilation has a very
23 clear meaning, which is you're -- there's
24 inadequate ventilation.
25 Q. Can hyperventilating mean that

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1 there's inadequate ventilation, as well?
2 A. Hyperventilating?
3 Q. Yes, can hyperventilating --
4 A. Or hypo?
5 Q. Hyperventilating mean there's
6 inadequate ventilation?
7 A. I think by definition, no.
8 Hyperventilation means more than the
9 usual ventilation.
10 Q. Can we agree that groaning may be
11 a sign of respiratory distress?
12 A. Well, again, groaning is somewhat
13 of an open term. It's hard to say what
14 they meant by -- what's meant. It
15 depends on what you mean by groaning. I
16 mean, some of your sea mates there may be
17 groaning through this deposition, but I
18 don't think they're in respiratory
19 distress.
20 Q. That's perceptive, but it doesn't
21 answer my question. Can groaning be a
22 sign of respiratory distress?
23 A. It depends on the circumstances.
24 I mean, to groan at least, you have to
25 pass enough air through your vocal cords

1 to vocalize, so, you know, I can't say no
2 to your question if that's what you're
3 asking.
4 Q. You can't say no or you can
5 say --
6 A. I cannot.
7 Q. Okay. So under certain
8 circumstances, groaning may be a sign of
9 respiratory distress, true?
10 A. Again, it depends on the
11 circumstances.
12 Q. So the statement is true
13 depending on the circumstances?
14 A. Potentially. I think it depends
15 on the circumstances.
16 Q. So is it accurate to say that
17 groaning can be a sign of respiratory
18 distress depending on the circumstances?
19 A. Yes.
20 Q. Can grunting be a sign of
21 respiratory distress depending on the
22 circumstances?
23 A. Again, with the same caveat, as
24 what is meant by grunting and groaning,
25 but potentially, yes.

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1 Q. If Mr. Sexton was making a
2 grunting and groaning noise similar to a
3 workout, would that be a noise consistent
4 with physical exertion?
5 MR. MC GEADY: Objection.
6 THE WITNESS: It could be.
7 BY MR. BERGER:
8 Q. And can Mr. Sexton's agitation be
9 a sign of physical exertion, as well?
10 A. Well, it's more likely that
11 agitation would lead to physical
12 exertion, right? If you're agitated, you
13 may be physically exerting yourself,
14 rather than agitation being a sign that
15 you're physically exerting yourself.
16 Q. All right. So in other words,
17 agitation can be -- can lead to physical
18 exertion?
19 A. Yes.
20 Q. In this case, do you believe that
21 Mr. Sexton experienced physical exertion
22 at any time? We're talking about after
23 midnight.
24 A. I believe Mr. Sexton was exerting
25 himself physically.

1 Q. At any time, did Mr. Sexton after
2 twelve a.m., suffer hypoxia?
3 A. Suffer hypoxia?
4 MR. WALSH: I'll object to
5 the form of the question. You can
6 answer.
7 THE WITNESS: I don't believe
8 there's any evidence that he suffered
9 hypoxia until the cardiopulmonary arrest.
10 BY MR. BERGER:
11 Q. What is hypoxia?
12 A. Low oxygen levels in the blood.
13 Q. How would you know whether or not
14 he had low oxygen levels in the blood if
15 his blood was never measured by pulse
16 oximetry?
17 A. Right, so I don't think there's
18 evidence that he was hypoxic.
19 Q. All right. And I guess it's your
20 testimony that there was no evidence of
21 hypoxia, because his oxygen was never
22 measured by pulse oximetry, is that
23 right?
24 A. Well, and also in looking at the
25 clinical presentation and the

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1 description, I don't think he's
2 evidencing hypoxia.
3 Q. What about the clinical
4 presentation indicates to you that he was
5 not suffering from hypoxia?
6 A. Well, again, he -- I think, you
7 know, he is vocalizing, he's moving. I
8 think at least nurse -- one of the nurses
9 says he's breathing, so I guess the
10 question is what is the evidence that
11 says he's hypoxic. We're not measuring
12 blood oxygen levels of anybody right now
13 here, and I don't think any of us are
14 hypoxic.
15 Q. Can you be moving while
16 restrained in a prone position and be
17 hypoxic?
18 MR. WALSH: Objection to
19 form. You can answer.
20 THE WITNESS: You can be
21 moving, but, again, in the milieu of
22 understanding that you're breathing and
23 there's no -- no study has really shown
24 that prone position, by itself, causes
25 hypoxia. The question is why would you

1 say hypoxia is occurring.

2 BY MR. BERGER:

3 Q. Can physical exertion cause
4 hypoxia?

5 A. So in terms of getting blood --
6 oxygen into the blood, physical exertion,
7 in general, no, unless you're at the
8 extreme ends of exertion.

9 Q. Why at the extreme end of the
10 exertion would you not be getting oxygen
11 in the blood?

12 A. Well, because you basically have
13 reached the point of absolute fatigue,
14 and this is an extreme level of exercise
15 physiology where you're not breathing,
16 but he's described as breathing and
17 vocalizing.

18 Q. Can a patient who's vocalizing
19 have hypoxia?

20 A. They can.

21 Q. Did this patient ever -- did Mr.
22 Sexton ever suffer from absence of
23 oxygen, anoxia?

24 A. Well, at some point, with his
25 cardiopulmonary arrest, he suffers that.

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1 Q. Was he absent of oxygen when he
2 turned over? When he was turned over, I
3 should say.

4 A. What do you mean by absence of
5 oxygen?

6 Q. Was he anoxic -- is anoxia
7 absence of oxygen?

8 A. Well, anoxia -- it depends on
9 where you're talking about. You know,
10 brain anoxia is really absence of oxygen
11 delivered to the brain. I guess -- I
12 think you need to be more precise here.

13 Q. Can you have anoxia without
14 having absence of oxygen to the brain?

15 A. Anoxia meaning no oxygen -- I
16 guess I'm not following you. Can you
17 have anoxia without having -- why don't
18 you repeat the question. I'm sorry, I
19 lost you --

20 Q. I'm sorry, I may be a little
21 confused, and I apologize. And I thought
22 I was taking this from one of your
23 depositions, but I could be wrong about
24 that. Is anoxia absence of oxygen in the
25 body?

1 A. It would be probably absence of
2 oxygen in the blood.

3 Q. All right. So can a patient
4 be -- have an absence of oxygen in the
5 blood and still have some oxygen in the
6 brain?

7 A. Likely not, depending on when
8 you're talking about. I mean, obviously,
9 if there's some oxygen delivered to the
10 brain, and then you say if there's no
11 more oxygen in the blood, you know,
12 whatever is still in the brain probably
13 gets utilized at that point, so -- but
14 generally, if you don't have oxygen in
15 the blood, you won't have oxygen in the
16 brain.

17 Q. So in this case, as I understand
18 it, Mr. Sexton did become anoxic after
19 his cardiopulmonary arrest at about
20 12:37, is that true?

21 A. Well, I would say that basically,
22 he became anoxic to the brain, right,
23 because there's no more blood flowing to
24 his brain with oxygen.

25 Q. If he was blue in color at the

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1 time that he was turned over, would you
2 agree that he had already suffered the
3 cardiopulmonary arrest before that time?

4 A. Yes.

5 (Discussion off the record.)

6 BY MR. BERGER:

7 Q. You cite the Hall article. Bear
8 with me, Doctor.

9 A. No problem.

10 Q. You cite -- I believe you cite
11 the Hall article, which is the
12 epidemiologic study that was done in
13 2011, in your report, is that right?

14 A. I don't know if it was 2011. I
15 recall it later.

16 Q. I'm looking at a 2011. I just
17 wanted to read for you under
18 recommendations. It says, quote, While
19 this study contradicts the notion that
20 prone positioning is a specific risk for
21 sudden in death -- custody death, it
22 should not be suggested that the accepted
23 medical definition of positional asphyxia
24 is erroneous.

25 Do you agree with that statement?

1 A. Well, I don't know what Hall
2 specifically meant by that, but I would
3 tend to agree with that.

4 Q. They go on to say, quote, There
5 is no doubt that an individual who has
6 become trapped in a head down or chest
7 compressed position without the
8 opportunity for self rescue can
9 asphyxiate.

10 Do you agree with that?

11 A. Again, I don't know what they're
12 specifically referring to. I think if
13 they're referring to, you know, the
14 original definition of positional
15 asphyxia, I would not disagree with that
16 necessarily.

17 Q. What definition of positional
18 asphyxia are you using?

19 A. Well, I think they're using the
20 traditional -- that first statement you
21 said said traditional, right? So I
22 think, you know, positional --

23 Q. Go ahead.

24 A. That first statement you read, I
25 think they said traditional, is that

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1 right?

2 Q. It says accepted medical -- we'll
3 just clear this up. It says accepted
4 medical definition --

5 A. Right. I think, again, as we
6 talked about earlier, the very first
7 definition of positional asphyxia, of the
8 thirty cases that were described, I
9 believe that's what they're referring to.

10 Q. And what is that definition?

11 A. Well, again, I think -- I'm not
12 sure if I reference it, but it really is,
13 you know, individuals who were found in
14 positions where it looks like they had
15 some reason to disrupt their respiratory
16 physiology and were in such a state that
17 they would not get out of that position
18 for whatever reason.

19 Q. What if they cannot get out of
20 that position?

21 A. Well, so that -- I mean, able to
22 get out and cannot get out, I'm not sure
23 how you're defining that difference
24 there.

25 Q. Well, cannot get out --

1 A. If you look at the original
2 description -- just give me one second --
3 if you look at the original description,
4 these were individuals who were
5 significantly altered that they would not
6 get out of these body positions that were
7 felt later on autopsy and investigation,
8 felt to interrupt their normal
9 respiratory physiology.

10 Q. Were those subjects under the
11 original definition restrained in custody
12 in a prone position?

13 A. They were not restrained. None
14 of the original cases for defining
15 positional asphyxia were restrained.

16 Q. All right. Do you agree with
17 this statement of the Hall article,
18 quote, We caution prehospital agencies to
19 understand that this study does not
20 provide evidence that abandonment of
21 restrained individuals in a prone
22 position for protracted lengths of time
23 is safe.

24 A. Well, again, I don't have that
25 study in front of me. I believe she's

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1 published other studies -- or that group
2 has published other studies since that
3 time. I'm not exactly sure what she's
4 referring to. I think the truth is, you
5 probably shouldn't abandon anybody who's
6 restrained in whatever position, for a
7 number of reasons. One, is why you
8 restrained them in the first place, the
9 underlying issues there. If she actually
10 used the word abandoned, I don't think
11 you want to do that, regardless of how
12 the person is restrained.

13 Q. Is it your position that
14 individuals who are restrained in the
15 prone position for protracted lengths of
16 time is safe?

17 A. It is my position that
18 individuals who are restrained in the
19 prone position, there's not good
20 physiologic evidence to suggest that
21 those individuals are at risk for
22 respiratory compromise, at least to
23 asphyxiation.

24 Q. If a patient is in the prone
25 position, would you agree that there can

1 be a restriction in the ability of the
2 lungs to expand?

3 MR. WALSH: Objection to
4 form. You can answer.

5 THE WITNESS: Individuals who
6 are in the prone position have a slight
7 decrease in the amount of air, lung --
8 amount of air and lung volumes that is
9 analogous, very similar, to when you are
10 in the supine position.

11 BY MR. BERGER:

12 A. Are you saying --

13 A. So if you're going to say
14 somebody -- go ahead.

15 Q. Go ahead.

16 A. If you're going to say somebody
17 reaches respiratory compromise to the
18 point of asphyxiation being prone, then
19 you have to say the same thing in terms
20 of them being on their back. They're at
21 the same risk, because if -- based on
22 your -- you know, your assertion in terms
23 of this level of decrement causing a
24 problem.

25 Q. So is it your position that

1 Q. All right. So a patient in a
2 supine or on their back, they are also --
3 can also be at risk of asphyxiation,
4 true?

5 A. No. I didn't say that.

6 Q. At this point, I may just be a
7 little confused, and I apologize. It's
8 your position that the patient who is
9 restrained on their chest in the prone
10 position is not at risk of asphyxiation,
11 is that true?

12 A. Yes. There's no good scientific
13 evidence to support this notion of
14 positional asphyxiation in prone
15 restraint.

16 Q. All right. And is it also true
17 that there's no evidence of increased
18 risk of asphyxiation when the patient is
19 restrained on his back?

20 A. I think that's correct, yes.

21 Q. So I guess, as I understand it,
22 it's your position that restraint cannot
23 cause asphyxiation, is that right?

24 A. Yes, with the caveat, obviously,
25 if you restrain somebody and cover up

1 whether the patient is restrained in the
2 prone position or in the back position,
3 that for protracted lengths of time, that
4 those positions are safe?

5 MR. WALSH: Objection to
6 form. You can answer.

7 THE WITNESS: Again, what I
8 am saying is that the idea that
9 asphyxiation occurs in the prone
10 position, we don't believe in the
11 restrained prone position, there's no
12 good scientific evidence to report that.
13 Whether restraint is safe on somebody,
14 whether supine or prone, is a different
15 issue.

16 BY MR. BERGER:

17 Q. Why is that a different issue?

18 A. Because there's so much other
19 issues that involve restraining somebody,
20 they're underlying condition and that
21 sort of thing, so, you know, that's a
22 different question than whether or not
23 prone restraint puts somebody at risk for
24 asphyxiation where a supine restraint
25 doesn't.

1 their mouth, and they obstruct their
2 upper airway, they're going to
3 asphyxiate. Now, just to clarify what
4 I'm saying, I'm not saying that sudden
5 death doesn't occur in people who are
6 restrained, right? Sudden death is
7 different from asphyxiation.

8 Asphyxiation can lead to sudden death,
9 but sudden death is a different issue.

10 Q. How do you define sudden death?

11 A. Sudden death.

12 Q. Okay.

13 A. It means sudden cardiopulmonary
14 arrest, right?

15 Q. Well, let me ask this --

16 A. Sorry.

17 MR. WALSH: Even you and I
18 understood that.

19 BY MR. BERGER:

20 Q. That's a very easy definition.
21 It's much appreciated.

22 Can exertion cause sudden death?

23 A. Yes. That doesn't mean we
24 shouldn't exercise, but yes.

25 Q. How does exertion cause sudden

1 death?

2 A. Well, it depends on the
3 individual, obviously, right, and their
4 conditioning status and their underlying
5 cardiac history and that sort of thing,
6 but when you exert yourself, obviously,
7 you generate, you know, catecholamines.
8 These are, you know, neurotransmitter
9 markers like Adrenalin. Those stimulate
10 the heart, and they can overstimulate the
11 heart and put you into an abnormal
12 cardiac dysrhythmia that can lead to
13 cardiac arrest.

14 Q. Did you look at the EKG strips?

15 A. Which ones? I did look at EKG
16 strips.

17 Q. Yeah, the telemetry strips.
18 While you're looking at those, can we
19 just take a quick break? I apologize for
20 going on and on.

21 A. Sure.

22 (Discussion off the record.)

23 (A recess was taken.)

24 BY MR. BERGER:

25 Q. Is it true that prone position on

1 A. No.

2 Q. Does that mean any restriction in
3 breathing?

4 A. Again, it means you decrease in
5 volume. If you're going to say that
6 prone positioning leads to decrease in
7 volume that leads to a restriction in
8 breathing, then you'd have to say lying
9 on your back to go to sleep, you have a
10 restriction in breathing.

11 Q. Well, that's a little bit
12 different than my question about prone
13 position and force. You're talking about
14 weight, I'm talking about force. Can
15 prone position with the addition of force
16 restrict breathing?

17 A. Well, tell me how you mean that
18 weight is different than force just so
19 that I'm clear.

20 Q. Well -- well, let me ask this:
21 If a person is struggling, and there is
22 weight on the person, does that increase
23 the force?

24 A. Well, weight is force, right, so
25 -- weight is force, so that does increase

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1 the chest plus force can restrict
2 breathing?

3 MR. WALSH: Objection to
4 form. You can answer.

5 THE WITNESS: Well, again,
6 the prone position results in some
7 decrement in lung volume. With weight,
8 as been studied, it doesn't significantly
9 increase, so our studies would suggest
10 that it's about the same, but, of course,
11 depending on how much weight is put on
12 somebody, at some point, you do crush
13 somebody. We've studied up to two
14 hundred and twenty-five pounds, and
15 people were able to ventilate just fine.

16 BY MR. BERGER:

17 Q. When you say decrement in
18 breathing, what do you mean?

19 A. Well, a decrease in lung volume
20 capacity.

21 Q. Does that mean a decrease in
22 oxygen?

23 A. No.

24 Q. Does that mean any difficulty in
25 breathing?

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1 force, right? Weight increases force.

2 Q. All right. Does weight and
3 struggling also increase force further?

4 A. Not necessarily. I mean, now
5 you're adding struggling, but struggling
6 doesn't necessarily increase the force.

7 Q. If a patient struggles, would you
8 agree that the people who are restraining
9 him increase their force in order to
10 control the patient?

11 A. It's possible. It depends,
12 again, on the circumstances, the
13 specifics.

14 Q. If force is increased when the
15 patient is in the prone position, can
16 that restrict breathing?

17 A. Well, again, in our studies where
18 we looked at up to two hundred and
19 twenty-five pounds of weight force, there
20 was a similar decrement to when they were
21 in the prone position or decrease in the
22 prone position, but there was no impact
23 on oxygenation or carbon dioxide levels.

24 Q. And that was your sixty-second
25 study, is that right?

1 A. Well, the weight force was not --
2 the exertion part was sixty seconds, yes.

3 Q. Are you going to give any
4 testimony about the heart rate at 12:15
5 of 99 and the heart rate of 136 at 12:32?

6 A. Not specifically, unless I was
7 asked about it.

8 Q. Well, that's what I want to know.

9 MR. BERGER: Are you going to
10 ask him about that, Tom?

11 MR. WALSH: Well, I'll object
12 to the extent that it's a -- those are
13 two facts, and they're two data points, I
14 mean, that potentially could come up
15 during his testimony at trial. I don't
16 want to exclude that possibility.

17 MR. BERGER: Well, I didn't
18 see anything in the report, and that's
19 why I asked. Is there something in the
20 report that I missed where he discusses
21 that?

22 THE WITNESS: Not
23 specifically.

24 MR. WALSH: Yeah, I don't
25 believe so.

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1 MR. BERGER: So what am I to
2 do here? I don't want to raise it if
3 he's not going to -- if it's not in his
4 report. See where I'm going?

5 MR. WALSH: I do, but there
6 may be many things that aren't
7 specifically mentioned in the report --

8 MR. BERGER: Well, that's not
9 going to fly --

10 MR. WALSH: -- but it could
11 come up on cross or during the testimony
12 somehow because it's in the chart, so I'm
13 not sure how to answer your question --

14 MR. BERGER: Well, here's my
15 question. I just don't want to be
16 surprised by any opinions about that.

17 MR. WALSH: Well, you know
18 what, if you give me just a moment to
19 talk to the Doctor out of the room, I can
20 probably answer that question for you --

21 MR. BERGER: Sounds like a
22 plan.

23 MR. WALSH: -- in a yes or
24 no. Okay, it will just take a minute.

25 (Discussion off the record.)

1 MR. WALSH: Mike, the only
2 relevance potentially to his opinion or
3 his testimony would be if the elevation
4 from 99 to 136 is just a reflection of
5 exertion, physical exertion, but he
6 wouldn't express any opinion beyond that,
7 I don't think.

8 MR. BERGER: All right. I'll
9 take that representation and pass on the
10 question.

11 BY MR. BERGER:

12 Q. So as I understand your position
13 on these issues, is that you do not
14 accept that prone position, hobbling
15 position, or a hogtie position
16 restricts -- in the prone position
17 restricts the individual from breathing,
18 is that true?

19 A. What I would say is that there is
20 no good evidence to suggest prone
21 position or hogtie position results in
22 respiratory compromise that would lead to
23 asphyxiation in and of itself.

24 Q. Does the prone position, hobble
25 position, or hogtie position result in

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1 any restriction in breathing?

2 A. So, again, to answer your
3 question, I would say the prone position,
4 when we looked at the evidence, there's a
5 decrease in lung volume, so when you lay
6 on your back or supine position, and
7 there's a bit more of a decrease when you
8 are hogtied or in the prone maximal
9 restraint position, but those decreases
10 are within the range of normal, which is
11 why people are able to oxygenate and
12 ventilate just fine.

13 Q. You state in your report, Even
14 with the force applied to restrain Mr.
15 Sexton in the prone position, he was
16 noted to be actively resisting, moving,
17 and vocalizing indicating he was not at
18 risk for respiratory compromise to the
19 point of asphyxiation.

20 If Mr. Sexton, while restrained in
21 the prone position with force, was not
22 actively resisting and moving, would that
23 indicate to you that he was at risk for
24 respiratory compromise?

25 MR. KOERNIG: Objection to

1 form.

2 MR. WALSH: I'll object to
3 the form, as well. You can answer.

4 THE WITNESS: I think that's
5 a bit of a hypothetical in my mind. I
6 think the question is if he's not
7 actively resisting and moving and
8 vocalizing, you know, what is really
9 happening -- what is going on with him
10 that they're still applying force at that
11 point, I guess. It's just not clear to
12 me what your hypothetical here is.

13 BY MR. BERGER:

14 Q. It is what it is. It's kind of
15 like your definition of sudden death.
16 We're on the same page.

17 A. Okay.

18 MR. BERGER: So could we read
19 that hypothetical back again?

20 (The reporter read back the
21 following question: "You state in
22 your report, Even with the force
23 applied to restrain Mr. Sexton in the
24 prone position, he was noted to be
25 actively resisting, moving, and

1 question, if none of that is happening,
2 is he, in fact, in cardiopulmonary or
3 respiratory arrest, or cardiorespiratory
4 arrest at that point, right, because why
5 are they restraining and holding somebody
6 who's basically not resisting is my
7 question.

8 Q. That's my question. Again, we're
9 on the same page.

10 MR. BERGER: Could you read
11 back his answer?

12 (The reporter read back the
13 following answer: "Well, again, I
14 would answer your question, if none
15 of that is happening, is he, in fact,
16 in cardiopulmonary or respiratory
17 arrest, or cardiorespiratory arrest
18 at that point, right, because why are
19 they restraining and holding somebody
20 who's basically not resisting is my
21 question.")

22 BY MR. BERGER:

23 Q. So if force is being applied to
24 restrain Mr. Sexton in the prone
25 position, and he was not actively

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1 vocalizing indicating he was not at
2 risk for respiratory compromise to
3 the point of asphyxiation.

4 If Mr. Sexton, while restrained in
5 the prone position with force, was
6 not actively resisting and moving,
7 would that indicate to you that he
8 was at risk for respiratory
9 compromise?"

10 THE WITNESS: I think the
11 question would be if he's not moving and
12 actively resisting and vocalizing, then
13 what is going on with him at that point.
14 Is he already in cardiopulmonary arrest?

15 BY MR. BERGER:

16 Q. Well, can I stick with my
17 question? I think you've gone a step
18 further. I just simply want -- let me
19 rephrase the question. If force is being
20 applied to restrain Mr. Sexton in the
21 prone position, and he was not actively
22 resisting and moving, would that indicate
23 that he was at risk for respiratory
24 compromise?

25 A. Well, again, I would answer your

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1 resisting and moving, would you agree
2 that he was at that point in
3 cardiopulmonary arrest?

4 MR. KOERNIG: Objection.

5 MR. WALSH: Object to the
6 form of the question. You can answer.

7 THE WITNESS: No, I can't --
8 you know, without -- without knowing more
9 details of his status, I can't say he's
10 in cardiopulmonary arrest. I can't agree
11 to that. I think that's one possibility.
12 I think, you know -- but I can't
13 absolutely say for certain he's in
14 cardiac arrest at that point.

15 BY MR. BERGER:

16 Q. Why not?

17 A. Why not? Well, because we don't
18 really have any evidence of what's
19 happening with his heart at that point
20 electrically or mechanically. I'm not
21 saying it's not a possibility, but I'm
22 saying I can't definitively tell you that
23 that's what's happening.

24 Q. What are the other possibilities,
25 then?

1 A. Well, I mean --
2 MR. WALSH: I'll object.
3 Again, it's -- you're carrying forward
4 the hypothetical, but you can answer.
5 THE WITNESS: Sure. Well, I
6 think if you talk to police officers,
7 sometimes they have situations where
8 individuals are restrained and they sort
9 of play possum, or, you know, they fake
10 like they're out of it so that the police
11 stop, and then as soon as they're off,
12 and they're resisting again and that kind
13 of thing, so it's hard -- you know, I
14 think there are a multitude of
15 possibilities, which would include
16 cardiopulmonary arrest.
17 BY MR. BERGER:
18 Q. Have you ever testified against a
19 police department?
20 A. I'm sorry?
21 Q. Have you ever testified against a
22 police department.
23 A. Testified in court or given an
24 opinion?
25 Q. Have you ever testified in court

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1 or in a deposition against a police
2 department.
3 A. I don't believe so.
4 Q. Are you currently involved in any
5 other cases where you are testifying as
6 an expert on behalf of police departments
7 at this time?
8 A. Where I'm scheduled to be in
9 court?
10 Q. No, where you would have an open
11 case where you are the expert witness for
12 police departments.
13 A. Yes, I'm sure I have some open
14 cases. And to be honest, some of them
15 may be closed. I mean, sometimes the
16 attorneys never get back to you and say
17 that case is done or not.
18 Q. Approximately how many open cases
19 do you have where you're serving as an
20 expert witness on behalf of police
21 departments?
22 A. I'm not sure of the exact
23 numbers. Probably like four -- three or
24 four right now.
25 Q. And are all those cases either

1 death cases or cases of brain damage?
2 A. I don't know -- I think most are
3 deaths. I think there might be one where
4 the individual is still alive.
5 Q. Do you have any other cases
6 pending currently where you are an expert
7 witness on behalf of doctors, nurses,
8 and/or hospitals?
9 A. I don't believe so, but without
10 my records in front of me, I can't say
11 for sure.
12 Q. Do you have any other open cases
13 where you are serving as an expert
14 witness on behalf of prehospital
15 personnel, EMTs, paramedics?
16 A. It's possible. Often times,
17 these law enforcement cases, they -- you
18 know, they're suing multiple agencies, so
19 it's possible that an EMS agency may be
20 one of the defendants in the case.
21 Q. Have you ever served as an expert
22 witness against prehospital personnel,
23 EMTs, paramedics?
24 A. I don't recall. As I mentioned,
25 I have been retained where I've provided

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1 an opinion that, you know, there may be
2 some problem in terms of what happened
3 with the individual, but I don't recall
4 if that involved the EMS agencies.
5 Q. Looking at your report, the last
6 sentence on the second-to-last page?
7 A. Yes.
8 Q. In addition, there was no
9 evidence on autopsy that any compressive
10 force resulted in significant traumatic
11 pulmonary or cardiac injuries or
12 obstruction in venous return as a result
13 of compressive asphyxiation.
14 What is evidence of significant
15 traumatic pulmonary injury?
16 A. Well, they can be pulmonary
17 contusions, rib fractures, you know,
18 cardiac tamponade, and then in terms --
19 we talked a little bit about what would
20 be recognized on venous return,
21 including, you know, broken blood vessels
22 and petechiae and that sort of thing.
23 Q. The cardiac injury of tamponade,
24 how does compressive force cause cardiac
25 tamponade?

1 A. Well, it can cause, you know,
2 cardiac injury or myocardial contusion
3 that could -- you know, cardiac rupture,
4 any one of those possibilities depending
5 on how much compressive force is applied
6 to the chest.

7 Q. Well, you're not --

8 A. And disruption of, you know, some
9 of the great vessels like the aorta or
10 something like that that can occur with
11 compressive force potentially.

12 Q. Well, you're talking about people
13 that have been run over by cars, right?

14 A. Well, compressive -- yeah,
15 compressive trauma, mechanical trauma to
16 the chest, yes.

17 Q. Right. When you testify that
18 there's no obstruction -- evidence of
19 obstruction in venous return as a result
20 of compressive asphyxiation, did you look
21 at the autopsy photographs?

22 A. I did.

23 Q. Did you see broken blood vessels
24 in the shoulders of Mr. Sexton?

25 A. I did not see any report of any

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1 petechiae other than some in the pleura,
2 but that was it, and I don't think those
3 are indicative of compressive
4 asphyxiation --

5 Q. Why is that --

6 A. -- and there wasn't a description
7 in the autopsy report -- what's that?
8 I'm sorry?

9 Q. Why do you say in the pleura
10 there are petechia, but there's no
11 evidence? Why do you say that?

12 A. Well, because usually, the
13 petechia that are associated with this
14 type of increased intrathoracic pressure
15 are more found in the faces and the skin
16 and that kind of thing and where there's
17 some backflow of, you know, obstruction
18 to the venous return. Petechia in the
19 parietal pleura really aren't indicative
20 of an obstruction in the venous return
21 necessarily.

22 Q. When you say necessarily, it can
23 be, though, right?

24 A. No, I just -- I'm not a forensic
25 pathologist, but that's not my

1 understanding. I think the --

2 Q. All right. So because you're not
3 a forensic pathologist, I have some issue
4 about you commenting on the autopsy.
5 Now, I understand you could testify that
6 the no compressive forces resulting in
7 the heart being crushed or any of that,
8 because that wasn't the type of
9 compressive injury that's part of this
10 case, but what qualifies you to give the
11 opinion that there was nothing on autopsy
12 that would indicate compressive asphyxia?

13 A. Well, I think what I can say, and
14 this may be parsing, is that the
15 pathologist does not report any findings
16 consistent with obstructive venous
17 return.

18 Q. Yeah, I just want to make sure
19 that you're not testifying out of your
20 area of expertise. That statement that
21 you make in your report, are you relying
22 on what the pathologist found?

23 A. Yes.

24 Q. All right. Is it accurate to say
25 that you did not look at any slides in

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1 this case? True?

2 A. That is correct.

3 Q. And you would not be qualified to
4 interpret any slides, is that true?

5 A. Yes.

6 Q. And would it also be accurate to
7 say that you would not be permitted to
8 sign any autopsy reports given your
9 training as an emergency room physician?

10 A. That is correct.

11 Q. And that last statement that
12 we've just been discussing, that was all
13 based on what the autopsy findings were,
14 is that true?

15 A. Yes.

16 Q. I think I just have a few more
17 questions, if you allow me to do that.

18 A. Of course.

19 Q. When you did your studies in '97,
20 2004, and 2007, would it be accurate to
21 say that you were monitoring the patients
22 for blood pressure?

23 A. I'd have to look at a specific
24 study, but as I recall, we did measure
25 blood pressure, at least on some of those

1 studies, yes.

2 Q. Is it also true in those studies
3 that you were also measuring the heart
4 rate?

5 A. Yes.

6 Q. Is it also true that you were
7 measuring the oxygen saturation?

8 A. Yes.

9 Q. Is it also true that you were
10 measuring the carbon dioxide level?

11 A. Yes.

12 Q. Did you determine whether or not
13 Mr. Sexton was bleeding during the
14 restraint procedure?

15 A. I believe there's a description
16 that he may have been bleeding from his
17 nose at some point, or they found some
18 evidence of bleeding.

19 Q. Do you know why he was bleeding
20 from his nose?

21 A. I don't know specifically why.
22 You know, usually, nose bleeds are caused
23 by some trauma. It might be minor
24 trauma, but depends. It depends on the
25 circumstances.

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1 Q. Is it accurate to say that you
2 don't know what his blood pressure was
3 during the course of the restraint?

4 A. Yeah, I don't believe they
5 measured his blood pressure during the
6 restraint.

7 Q. And you don't know what the
8 oxygenation was in his blood during the
9 restraint?

10 A. I don't believe they were
11 measuring the oxygen level during the
12 restraint.

13 Q. And you don't know what the
14 carbon dioxide level was during the
15 restraint?

16 A. I don't believe they were
17 measuring the carbon dioxide level during
18 the restraint.

19 Q. The only measurement that was
20 being measured was by telemetry of the
21 heart rate, is that true?

22 A. Of the vital signs, I believe
23 that's correct.

24 Q. Do you use telemetry at your
25 hospital?

1 A. Yes.

2 Q. Does your telemetry save the data
3 in the computer which can be printed out?

4 MR. MACKEY: Object to form.

5 THE WITNESS: Within a period
6 of time, I believe that's correct.

7 BY MR. BERGER:

8 Q. Did you see any printouts other
9 than the printout of 12:19 and 12:32 of
10 telemetry after midnight?

11 A. I don't have my file in front of
12 me. It's possible there were some in
13 there. It wasn't that germane to my
14 opinion.

15 Q. Well, let me ask it this way:
16 From 12:32 to 12:37, did you see any
17 telemetry printouts?

18 A. 12:32 to 12:37?

19 Q. That time period.

20 A. I'd have to look back, I mean, to
21 be honest with you --

22 Q. Well, I'll be honest with you, we
23 don't have any. I just wondered if you
24 saw any.

25 A. Oh, okay. I don't recall seeing

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1 any at that time, but again, my file's
2 not in front of me.

3 Q. I just want to read something to
4 you and see if you agree with this.

5 MR. DE LAURENTIS: Which
6 paper of his is this from?

7 BY MR. BERGER:

8 Q. When you talk about the
9 increasing intrathoracic cavity pressure
10 to prevent adequate breathing, you also
11 prevent adequate venous return and
12 thereby reduce cardiac output. Do you
13 agree with that?

14 A. I don't know. I'm not sure where
15 you're reading from, but there is a point
16 where, yes, if you increase intrathoracic
17 pressure, you will potentially impact
18 venous return and cardiac output.

19 Q. These mechanical and traumatic
20 asphyxia deaths, what you see in the
21 autopsy and the literature is evidence
22 that they had backflow of blood. They
23 have small blood vessels burst, they have
24 evidence of facial swelling, and swelling
25 above the shoulders and that sort of

1 thing. Do you agree with that?
 2 A. I think those are some of the
 3 things you could see depending on, you
 4 know, the amount of venous obstruction
 5 and -- yes, potentially.
 6 Q. Do you agree with this statement:
 7 Where there's insufficient oxygen in the
 8 blood due to interference with adequate
 9 ventilation of the lungs, the blood does
 10 not become saturated with oxygen, and its
 11 level, that is the oxygen saturation
 12 level in the blood decreases.
 13 A. So there are many parts to that
 14 statement. Let's unpack it a little bit.
 15 So, yes, if there's less oxygen going
 16 into the blood, you would have a decrease
 17 in oxygen saturation.
 18 Q. Do you agree with this --
 19 A. That part --
 20 Q. I'm sorry.
 21 A. Go ahead. No, I'm done.
 22 Q. My turn. Do you agree with this
 23 statement: Insufficient oxygen
 24 saturation in the human body can include
 25 failure of the heart and the lungs?

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1 A. Read that again?
 2 Q. Insufficient oxygen saturation in
 3 the human body can lead to failure of the
 4 heart and the lungs.
 5 A. Well, it can lead to failure of
 6 all the organ tissues, so in general,
 7 that's generally correct. I mean,
 8 depending on the level of oxygen in the
 9 blood.
 10 Q. Well, specifically, insufficient
 11 oxygen saturation in the human body, can
 12 that lead to a failure of the heart and
 13 the lungs specifically?
 14 A. It can lead to failure of the
 15 heart. You know, some -- really, the
 16 failure of the lungs may be the cause of
 17 the insufficient oxygen, right? So, you
 18 know, it's kind of --
 19 Q. An example of insufficient oxygen
 20 saturation in the human body would be a
 21 cardiopulmonary arrest, do you agree with
 22 that?
 23 MR. MACKEY: Object to form,
 24 not defining the word insufficient.
 25 THE WITNESS: So say again,

1 I'm sorry?
 2 BY MR. BERGER:
 3 Q. Insufficient oxygen saturation in
 4 the human body would be exemplified by
 5 what is cardiopulmonary arrest?
 6 A. Well, if you do not have enough
 7 oxygen in your blood, it could lead to
 8 cardiopulmonary arrest, is that your
 9 question?
 10 Q. Yes.
 11 A. I mean, depending, again, on
 12 degree, yes, that could cause
 13 cardiopulmonary arrest.
 14 Q. In addition to serving as an
 15 expert for police departments, do you
 16 also lecture police departments on
 17 restraint?
 18 A. I lecture -- I've lectured police
 19 departments on the physiologic impact of
 20 restraint.
 21 Q. Okay.
 22 A. Not necessarily police practices,
 23 but, you know, the physiology behind
 24 restraint, yes.
 25 Q. In what states have you given

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1 speeches to police departments?
 2 A. California, Nevada, Florida, come
 3 to mind. There might be others, I just
 4 can't recall specifically. Those three
 5 for sure.
 6 Q. When you give these lectures to
 7 police departments, do you advocate the
 8 use of restraint in the prone position?
 9 A. Again, I'm not a police practices
 10 expert, so what I cover is here are the
 11 physiologic impacts of different
 12 restraint techniques and methods. There
 13 are a lot of other factors that go into,
 14 you know, what police decide they'll
 15 practice, including what's practical,
 16 what equipment they have, what they feel
 17 is safe for the officer, that kind of
 18 thing. But, you know -- and I cover
 19 other physiologic effects of restraint
 20 and, you know, restraint-related things
 21 like Tasers and pepper spray and that
 22 kind of thing.
 23 Q. Do you tell police departments in
 24 your lectures that it's safe to restrain
 25 individuals on their chests in the prone

1 position?

2 A. What I cover, again, is what are
3 the physiologic impacts, and the one
4 thing I often say is it looks like the
5 respiratory impact is the same whether
6 you're supine or prone. If you look at
7 the studies, even the epidemiologic
8 studies, deaths have occurred in all
9 sorts of restraint positions, so, you
10 know, the closest I've really come to
11 saying anything about practice is to say
12 if you're thinking of not using the prone
13 position and that's going to prevent
14 these types of deaths, they say that's
15 probably not the case, because we see
16 these types of deaths in non-prone
17 restraint positions.

18 Q. So I guess what I'm understanding
19 that you do is that you're telling police
20 departments that it's safe to use the
21 prone position in restraining
22 individuals, is that true?

23 MR. WALSH: Object to the
24 form of the question. You can answer.

25 THE WITNESS: I think you're

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1 generalizing too much. I think what we
2 cover is this idea that there's this
3 asphyxiation risk only with prone
4 restraint or with prone restraint. You
5 know, what I'm covering is what are the
6 physiologic effects of restraint in
7 general, and then focusing on the
8 respiratory effects of prone restraint
9 versus other positions, so I'm not saying
10 one is definitely safer than the other,
11 because there's a lot of other factors
12 that go into police departments
13 determining what their policies and their
14 practices are.

15 BY MR. BERGER:

16 Q. Well, I guess the conclusion from
17 what you're telling them about your
18 physiologic opinion about prone restraint
19 is, is that there's no issue in using
20 prone restraint as opposed to supine as
21 opposed to sitting, is that true?

22 A. Well, I think that's a little bit
23 closer to probably what we say. We say,
24 look, there's no good scientific evidence
25 to support that there's a respiratory

1 problem in prone versus supine restraint
2 or other restraint positions, because
3 these deaths have been described in all
4 sorts of restraint positions.

5 Q. Do you also defend police
6 departments when they are using Tasers?

7 A. Well, I've been retained by
8 different defense attorneys. I don't
9 know who they're representing. You know,
10 in terms of other less lethal weapons
11 like Tasers, because we've done some
12 studies on Tasers, and I tell them what
13 our studies show and what they don't
14 show, and, you know, they decide what
15 they want to use and not.

16 Q. Have you given expert opinions in
17 the defense of police departments when
18 they've used Tasers?

19 MR. WALSH: Objection to
20 form, the term in the defense of. You
21 can answer.

22 THE WITNESS: I've given
23 opinions as to what role Tasers may or
24 may not have played in a given case or
25 situation.

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1 BY MR. BERGER:

2 Q. And are those opinions on behalf
3 of police departments or individual
4 policemen?

5 A. Some of them have. I'm not sure
6 all of them.

7 Q. Have you given testimony on
8 behalf of the Taser manufacturers?

9 MR. WALSH: Objection to the
10 form, on behalf of. You can answer.

11 THE WITNESS: Well, again,
12 I've been retained in cases. I don't
13 know who's on -- you know, who's also on
14 which side or what. I'm sure Taser's
15 been sued or, you know, have been
16 codefendants or whatever with law
17 enforcement agencies, so I can't tell you
18 one way or the other for sure. I would
19 suspect, though, that they've been sued
20 in these cases, as well.

21 Q. Well, more specifically, have you
22 ever served as an expert witness
23 defending Taser manufacturers?

24 A. I don't recall being directly
25 retained by a Taser manufacturer. Now,

1 I've been retained by law enforcement
2 agencies, and I don't know if their
3 codefendants are Taser or not in some of
4 these cases.
5 Q. Have you given expert opinions in
6 cases involving use of pepper spray?
7 A. Yes.
8 Q. And have all those cases been on
9 behalf of law enforcement agencies?
10 A. No.
11 Q. What other circumstances have you
12 given such opinions on pepper spray?
13 A. I think there's -- I think, I
14 believe, one case, this is a number of
15 years ago, involving an EMS agency.
16 Q. Any other areas of where you have
17 given expert opinions? We've gone
18 through prone position, hogtie -- what's
19 hobble, by the way?
20 A. Hobble is -- it's like the
21 hogtie, but there's a little bit more
22 distance between the ankles and the
23 wrists.
24 Q. Let me repeat the question, then.
25 You've given opinions, as I understand

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1 it, in cases of restraint involving the
2 prone position, hogtie, hobble position,
3 pepper spray, Tasers. Any other topics
4 along those lines?
5 MR. MC GEADY: Objection.
6 THE WITNESS: I think that
7 covers, you know, the majority of these
8 types of cases involving law enforcement
9 or EMS agencies. I mean, I'd have to
10 look through my, you know, records to see
11 how many -- if there are any other issues
12 that come up. I can't recall off the top
13 of my head.
14 BY MR. BERGER:
15 Q. According to our records, you've
16 testified in cases involving Tasers of
17 probably four or five times, is that
18 right?
19 A. Probably. I just -- you know,
20 again, I don't have records in front of
21 me.
22 Q. That was from a deposition in
23 2014. Have you given any opinions about
24 Tasers since 2014?
25 A. It's possible. You know, I just

1 don't -- I don't recall.
2 MR. BERGER: Just give me a
3 minute, I'm just checking my notes, Dr.
4 Chan.
5 THE WITNESS: Sure.
6 (Discussion off the record.)
7 BY MR. BERGER:
8 Q. Just a few more questions about
9 your 2007 article. When you put the
10 participants on the treadmill, it looks
11 like it was at a rate of 3.6 miles per
12 hour, is that right?
13 A. I don't have the study in front
14 of me. It's what's called a max test, so
15 it's hard to say -- you know, if that's
16 what it says, that's what it says.
17 Q. The only reason why I ask, I
18 mean, even an old man my age, I go over
19 four miles per hour, so how did you
20 select 3.6?
21 A. Well, I think actually the way
22 you do it, there's a specific protocol,
23 the Bruce Protocol, right, in terms of
24 getting to the max oxygen consumption, so
25 Fred Kolkhorst, our Ph.D. expert, our

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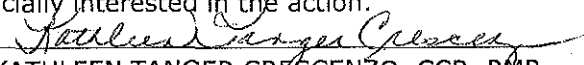
1 epidemiologist, he does all these max
2 tests, and it's a pretty standardized
3 protocol, is my understanding, so I can't
4 really speak to specific questions about
5 it.
6 Q. Fair enough. Do you know how
7 long the individuals were on the
8 treadmill?
9 A. I can't recall.
10 Q. Do you know how far they went?
11 A. I can't recall.
12 MR. BERGER: All right. I
13 have no further questions. Thank you,
14 Dr. Chan, for your patience. Sorry I'm
15 not in San Diego.
16 THE WITNESS: Okay, no
17 problem.
18 (Deposition concluded at 4:20 p.m.)
19 *****
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CERTIFICATION

I, KATHLEEN TANGER CRESCENZO, a
Certified Court Reporter of the State of
New Jersey, authorized to administer
oaths pursuant to R.S.41:2-2, do hereby
certify that prior to the commencement of
the examination, the witness,
THEODORE C. CHAN, M.D., was sworn by me
to testify to the truth, the whole truth,
and nothing but the truth.

I DO FURTHER CERTIFY that the
foregoing is a true and accurate
transcript of the testimony that was
taken stenographically by and before me
at the time, place, and on the date
herein before set forth.

I DO FURTHER CERTIFY that I am
neither a relative nor employee nor
attorney nor counsel of any of the
parties to this action and that I am not
financially interested in the action.


KATHLEEN TANGER CRESCENZO, CCR, RMR
Certificate #XIO1011

DATED: December 5, 2017

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Sheila Phillips.txt

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1 UNITED STATES DISTRICT COURT
2 DISTRICT OF NEW JERSEY
3 CAMDEN VICINAGE
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ALLYSON SEXTON, general	:	
administratrix and	:	VIDEOTAPED
administratrix and	:	TELECONFERENCE
prosequendum of the	:	SWORN DEPOSITION
Estate of BRETT J.	:	OF
SEXTON, and ALLYSON	:	SHEILA PHILLIPS, R.N.
SEXTON, individually,	:	
	:	
Plaintiffs,	:	
	:	
v.	:	
	:	
ANTHONY J. RIZZETTA,	:	
D.O., et al,	:	
	:	
Defendants.	:	
	:	

Transcript of the above-entitled matter, by
and before SAMANTHA A. OAKLEY, a Certified Court
Reporter, and Notary Public for the State of New
Jersey, at the offices of THOMAS G. OAKES
ASSOCIATES, 535 Route 38 East, Suite 330, Cherry
Hill, New Jersey, on December 14, 2016 commencing at
11:10 a.m.
Job No. 100822

Sheila Phillips.txt

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Testimony of: Sheila Phillips, R.N.

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By Mr. Berger

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1 SHEILA PHILLIPS, R.N., after having
2 been duly sworn, was examined and testified as
3 follows:

4 DIRECT EXAMINATION BY MR. BERGER:

5 Q. Ms. Phillips, good morning. My name
6 is Mike Berger. I represent the Sextons in this
7 matter and we're here today to ask you some
8 questions about your care and treatment of Brett
9 Sexton and that would have been in 2013. Have you
10 ever had your deposition taken before?

11 A. No.

12 Q. Can you hear me all right?

13 A. Yes.

Sheila Phillips.txt

14 Q. Very good. So I know you have had an
15 opportunity to speak with Mr. Bishop and I am sure
16 he has prepared you and instructed you on a
17 deposition but let me go over some ground rules
18 please. First of all, if you don't understand the
19 question that I ask please tell me. I'll either
20 repeat it or rephrase it. Do you understand that
21 instruction?

22 A. I do.

23 Q. All of your answers must be verbal;
24 do you understand that?

25 A. I do.

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1 Q. Wait until I finish the question to
2 answer the question. We want the transcript to be
3 clean so it's question, answer. Occasionally I
4 might step on your answer, interrupt you not on
5 purpose but that happens, or vice versa, but let's
6 try to make it as responsive as possible; do you
7 understand that?

8 A. I do.

9 Q. If at any time you don't know the
10 answer to the question and that's a truthful answer

Sheila Phillips.txt

11 please tell me and I'll accept that answer; do you
12 understand that?

13 A. I do.

14 Q. If at any time you need to refer to a
15 record in order to give an answer that's perfectly
16 appropriate as well. You just have to tell us what
17 document you are referring to; do you understand
18 that?

19 A. I do.

20 Q. If at any time you're giving an
21 estimate as to time just please tell us that it is
22 an estimate; do you agree to that?

23 A. I do.

24 Q. By the same token, if you remember a
25 conversation or the gist of a conversation just give

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6

1 us that qualification if that's the nature of your
2 answer; do you understand that?

3 A. I do.

4 Q. If at any time you need to take a
5 break for any reason just tell us. We won't be all
6 that long but nonetheless I want to offer you that
7 accommodation because we may take up that offer

Sheila Phillips.txt

8 ourselves; do you understand that?

9 A. I do.

10 Q. You understand that your testimony is
11 under oath and has the same force and effect of law
12 as if you were giving testimony in front of a judge
13 and jury; do you understand that?

14 A. I do.

15 Q. Do you have any questions before we
16 begin?

17 A. No.

18 Q. Could you state your full name for
19 the record?

20 A. Sheila Marie Phillips.

21 Q. Where do you presently live, Ms.
22 Phillips?

23 A. 891 Rudolph Run Road, Spraggs,
24 S-P-R-A-G-G-S, Pennsylvania 15362.

25 Q. You're giving testimony from

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1 Morgantown, West Virginia this morning?

2 A. Yes.

3 Q. Why are you in Morgantown, West
4 Virginia?

Sheila Phillips.txt

5 A. It's the nearest videography center
6 to do this at, to my home.

7 Q. Is Spraggs, Pennsylvania near
8 Morgantown, West Virginia?

9 A. Yes. It's about 20 minutes north.

10 Q. Where do you presently work?

11 A. At the Washington Health Systems
12 Greene Emergency Department.

13 Q. For how long have you worked there?

14 A. One year in October -- last October.

15 Q. What is your position in the
16 emergency department?

17 A. I'm a registered nurse.

18 Q. Have you worked in the emergency
19 departments anywhere else before this particular
20 job?

21 A. I worked in Atlantic City at
22 AtlantiCare in the emergency department and when I
23 was at Cape Regional I was a float nurse that
24 occasionally floated down to the ER there.

25 Q. What is a float nurse?

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1 A. It's a nurse that is scheduled

Sheila Phillips.txt

2 full-time at the hospital that fills in holes on
3 units whenever needed wherever needed.

4 Q. In July of 2013 were you a float
5 nurse at Cape Regional?

6 A. Yes.

7 Q. What was your position at Cape
8 Regional in July of 2013?

9 A. Registered nurse in the float pool.

10 Q. Were you an employee of Cape Regional
11 Hospital at that time?

12 A. Yes.

13 Q. Were you paid by Cape Regional
14 Hospital?

15 A. Yes.

16 Q. For how long were you a nurse at Cape
17 Regional Hospital?

18 A. Approximately one year.

19 Q. Why did you leave Cape Regional
20 Hospital?

21 A. A friend of mine talked me into going
22 to Atlantic City to work in the ER there.

23 Q. When you were working in the ER in
24 Atlantic City were you a float nurse as well?

25 A. No.

Sheila Phillips.txt

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9

1 Q. Before becoming a float nurse at Cape
2 Regional for that year where did you work?

3 A. I did a 13-week travel nurse contract
4 at Monmouth Medical Center. And prior to that I
5 worked at the Washington Health Systems Hospital in
6 Washington, PA.

7 Q. For how many years did you have that
8 job?

9 A. At Washington?

10 Q. Yes.

11 A. Approximately eight years.

12 Q. When did you become a nurse?

13 A. 2005 is when I graduated.

14 Q. What nursing school did you graduate
15 from?

16 A. The Washington Hospital School of
17 Nursing.

18 Q. Is that in Washington, PA?

19 A. Yes.

20 Q. Where is Washington, PA?

21 A. It is about an hour north of
22 Morgantown on the interstate.

Sheila Phillips.txt

23 Q. In your training in nursing school
24 did you have any course training dealing with
25 patients who were undergoing alcohol detoxification?

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1 A. I'm sure I did at some point touch on
2 that, not extensive.

3 Q. Working as a nurse in Washington,
4 Pennsylvania for those eight years did you treat
5 patients who were undergoing alcohol detoxification?

6 A. I don't remember if I did or not at
7 Washington.

8 Q. After Washington I think you said you
9 did a 13-week traveling nurse position; is that
10 right?

11 A. Yes. At Monmouth Medical Center.

12 Q. What was your position at Monmouth
13 Medical Center?

14 A. I was a registered nurse on a
15 nine-bed stepdown unit.

16 Q. In that 13-week program did you have
17 any patients who were undergoing alcohol
18 detoxification?

19 A. No.

Sheila Phillips.txt

20 Q. During the one year that you worked
21 at Cape Regional Hospital did you treat any patients
22 other than Brett Sexton who were undergoing alcohol
23 detoxification?

24 A. Yes.

25 Q. Can you estimate how many patients?

11

1 A. No.

2 Q. Can you tell me if it was on a weekly
3 basis, monthly basis? Can you give me that
4 information?

5 A. I would say monthly.

6 Q. Would it be approximately one patient
7 per month?

8 A. I can't say for sure. Some months a
9 couple, some months maybe none.

10 Q. At Cape Regional Hospital did you
11 receive any training as to how to treat patients who
12 were undergoing alcohol detoxification?

13 A. I don't remember.

14 Q. Have you ever received any training
15 throughout your nursing career on how to treat
16 patients who are undergoing alcohol detoxification?

Sheila Phillips.txt

17 A. Again, in nursing school I believe I
18 touched on it at some point. I don't remember
19 having anything specific in that regards anywhere.

20 Q. In 2013 were you familiar with how
21 doctors treated patients with alcohol
22 detoxification?

23 A. Per patient at the time I knew what
24 orders I had for those specific patients.

25 Q. Are you familiar with any drugs that

12

1 were used in 2013 at Cape Regional to treat patients
2 undergoing alcohol detoxification?

3 A. Yes.

4 Q. What are those drugs?

5 A. Ativan, Librium. Those were the two
6 main ones I was familiar with. Haldol occasionally
7 if somebody was combative and out of control.

8 Q. The Ativan, how is that administered?

9 A. It could be administered IV or IM,
10 intramuscularly.

11 Q. The Librium, how is that
12 administered?

13 A. Again, either IM or IV.

Sheila Phillips.txt

14 Q. How is the Haldol administered?

15 A. Both ways again.

16 Q. To your knowledge, did Ativan --
17 strike that.

18 To your knowledge, does Ativan have
19 the effect of slowing down the respiration rate of a
20 patient?

21 A. I have never had a problem with that.
22 It can.

23 Q. So my question is not whether or not
24 you had a problem with that. My question is a
25 little bit different. So it's a clean question. I

13

1 think you have answered but let me just rephrase it
2 again.

3 Can Ativan slow the heart rate down
4 of a patient?

5 A. Yes. Did you ask respirations the
6 first time?

7 Q. Yes, I did.

8 MR. BISHOP: I just want to make sure
9 we're on the same page. Go ahead, Mike.

10 BY MR. BERGER:

Sheila Phillips.txt

11 Q. Can Ativan slow down the respiration
12 rate of a patient?

13 A. Yes. Yes.

14 Q. How do you know whether a drug slows
15 down the respiration rate of a patient?

16 A. You would look at their pulse ox and
17 look at their respiration rate if they're on a
18 monitor or you would count the respirations.

19 Q. What monitor counts a respiration
20 rate?

21 A. A heart monitor if it's set to that.

22 Q. Right. What's a Criticon?

23 A. I don't know.

24 Q. There's been some testimony in this
25 case before your testimony about machines that were

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1 outside of this unit in the halls which they called
2 a Criticon I believe. Are you familiar with that
3 type of machine?

4 A. I'm not familiar with the name. Is
5 that a portable blood pressure machine?

6 Q. Yes, that was my understanding.

7 A. I'm not familiar with the name.

Sheila Phillips.txt

8 There are lots of different manufacturers and
9 different hospitals have sometimes more than one
10 brand. I'm not familiar with that name.

11 Q. Could you describe the machine that
12 you were familiar with that was at Cape Regional?

13 A. No, I don't recall.

14 Q. Did that -- was that a type of
15 machine that could measure blood pressure?

16 A. Yes.

17 Q. Was that the type of machine that
18 could measure respiration rate?

19 A. I don't know.

20 Q. Do you know whether that machine
21 could measure the pulse oxygenation?

22 A. Yes.

23 Q. In order to measure pulse oxygenation
24 is that a clip which is clipped onto the end of a
25 finger, is that the way that works?

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15

1 A. Yes.

2 Q. And have you had experience in using
3 that type of equipment?

4 A. Yes.

Sheila Phillips.txt

5 Q. You testified earlier that pulse
6 oxygenation can give you an indication of a slowing
7 heart rate; is that right?

8 A. No.

9 Q. Did you testify that pulse
10 oxygenation could give you information on the effect
11 of Ativan, for example?

12 MR. BISHOP: Mike, I think she
13 testified that the pulse ox could give you some
14 information about the respiration rate.

15 BY MR. BERGER:

16 Q. Can pulse oxygenation equipment give
17 you information about the respiration rate?

18 A. No. No. Not the rate.

19 Q. Does it give you information about
20 respiration?

21 A. It gives you information as to
22 whether or not the patient is oxygenated or not.

23 Q. All right. Thanks for clearing that
24 up.

25 A. Yeah.

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16

1 MR. BISHOP: There's no question.

Sheila Phillips.txt

2 You're good.

3 BY MR. BERGER:

4 Q. How long does it take from the time
5 that the clip is attached to the patient's finger to
6 determine the oxygenation of the patient?

7 A. That depends on whether the patient
8 is moving or not. If they're still within seconds.
9 If they're moving it could take until they're still.
10 It won't read if the patient is moving. If the hand
11 is moving if you have it on the finger it won't give
12 us an accurate reading.

13 Q. Can the attachment be attached to the
14 earlobe of the patient as well to get information?

15 A. Yes, sometimes.

16 Q. All right. Can the attachment be
17 attached from the pulse oxygenation equipment to any
18 other part of the body to get a reading?

19 A. A toe.

20 Q. So if the patient is still it takes
21 merely seconds for the pulse oxygenation to be
22 measured by the equipment?

23 A. If they're being oxygenated, yes.

24 Q. Was that equipment readily available
25 in July of 2013 on the floor where Mr. Sexton was?

Sheila Phillips.txt

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1 A. What do you mean by readily
2 available?

3 Q. Was it in the hall and could it be
4 wheeled into the patient's room?

5 A. I don't know for sure.

6 Q. We were talking about the effects of
7 the different drugs used to treat alcohol
8 detoxification. Librium can, in fact, slow the
9 heart rate; is that true?

10 A. I don't know right now.

11 Q. All right. Do you have occasions to
12 use Librium with patients in your current job?

13 A. Not typically.

14 Q. Can Librium cause a slowing of the
15 respiration rate of the patient?

16 A. I don't know that right now.

17 Q. Did you know that information in
18 2013, whether or not Librium could slow the
19 respiration rate of the patient?

20 MR. BISHOP: Objection to the form.
21 You can answer.

22 THE WITNESS: I probably did at the

Sheila Phillips.txt

23 time because I used the medication more often then.

24 I don't use it anymore.

25 BY MR. BERGER:

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1 Q. What is Haldol?

2 A. It's a medication to calm patients
3 down.

4 Q. You testified earlier that you were
5 familiar with Haldol being used when patients became
6 assaultive; is that right?

7 A. Uh-huh.

8 Q. Is that a yes?

9 A. Combative. Yes.

10 Q. What do you mean by assaultive or
11 combative?

12 A. Fighting to get away, to leave,
13 hitting, fighting their treatment, physically
14 fighting, not verbally. Just physically swinging,
15 trying to leave in a forceful manner, pushing,
16 kicking, hitting.

17 Q. Going back to your experience in
18 Washington, Pennsylvania after you graduated from
19 nursing school, during those eight years did you

Sheila Phillips.txt

20 encounter patients who were assaultive and
21 combative?

22 A. I don't recall.

23 Q. During the 13-week traveling nurse
24 position at Monmouth Hospital did you encounter
25 patients who were assaultive and combative?

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1 A. No.

2 Q. During your one-year experience at
3 Cape Regional Hospital did you encounter patients
4 who were assaultive and combative?

5 A. Yes.

6 Q. Can you give me an estimate on how
7 many occasions that happened?

8 A. Again, I would say monthly. A couple
9 times maybe.

10 Q. Do you mean a couple times per month;
11 is that your estimate?

12 A. Yes, to my best recollection at this
13 point.

14 Q. When you were at Washington,
15 Pennsylvania during those eight years did you have
16 any training dealing with how patients were to be

Sheila Phillips.txt

17 restrained?

18 A. I don't recall.

19 Q. When you were at Cape Regional
20 Hospital did you attend any training on how patients
21 were to be restrained?

22 A. Again, I don't recall specifically
23 that kind of training.

24 Q. Were you aware that there was a
25 hospital policy at Cape Regional Hospital dealing

20

1 with restraint of patients?

2 A. I don't recall that right now.

3 Q. Are you aware that there are three
4 kinds of restraints -- chemical, physical, and
5 actual restraint equipment?

6 A. Yes.

7 Q. During your experience at Cape
8 Regional Hospital did you ever have occasion to use
9 the restraint equipment on patients?

10 A. Yes.

11 Q. What kind of restraint equipment did
12 you use and employ at Cape Regional?

13 A. On confused patients we used mitts

Sheila Phillips.txt

14 sometimes to keep them from pulling on equipment,
15 soft restraints to keep limbs down so they wouldn't
16 pull at equipment sometimes. Four-point restraints
17 if they were extremely combative and extremely
18 physically fighting their treatment.

19 Q. For the use of restraint equipment
20 that you have described, whether it's mitts or soft
21 ties, did you ever restrain any of those patients on
22 their stomachs and chest?

23 A. No.

24 Q. Why not?

25 A. It was not appropriate to do so.

♀

21

1 Q. Did you understand at that time at
2 Cape Regional Hospital that standard of care in
3 nursing required patients who were restrained by
4 physical restraints had to be restrained on their
5 backs?

6 A. Yes.

7 Q. When patients were physically
8 restrained by restraint equipment on their backs did
9 you understand that monitoring of the patient was
10 required?

Sheila Phillips.txt

11 A. Yes.

12 Q. What type of monitoring was required
13 at Cape Regional when patients were restrained by
14 restraint equipment on their backs?

15 A. A one-on-one sitter was required.
16 Vital signs per protocol; I don't remember the exact
17 protocol at this time. And general making sure
18 their limbs were okay, that their pulses were good,
19 that they were toileted, that they were offered
20 drinks, that their physical needs were met.

21 Q. Did the standard of care at Cape
22 Regional Hospital for nurses and nursing require
23 that vital signs be taken per protocol when the
24 patient was restrained by physical equipment?

25 A. Yes, per protocol or per doctor's

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22

1 orders.

2 Q. Checking the pulses, was that
3 required under the standard of care as well when
4 patients were restrained by physical equipment?

5 A. Yes.

6 Q. Did you have occasion to perform that
7 type of monitoring on any of your patients who were

Sheila Phillips.txt

8 restrained by physical equipment?

9 A. Yes.

10 Q. Did you ever have a patient die who
11 was restrained by physical equipment while under
12 your care?

13 A. No.

14 Q. Did you ever have patients who were
15 chemically restrained while at Cape Regional
16 Hospital?

17 A. Yes.

18 Q. Would you describe what chemical
19 restraint means?

20 A. Medications given such as Ativan or
21 Haldol to calm the patient to keep them from harming
22 themselves, harming others or pulling out equipment
23 or interfering with their treatment.

24 Q. Did the standard of care for nursing
25 require that the patient be chemically restrained on

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23

1 his or her back when Haldol and Ativan were being
2 administered?

3 A. I don't know if there was a protocol
4 for that.

Sheila Phillips.txt

5 Q. Did you understand that the standard
6 of care required four nurses at Cape Regional
7 Hospital that any time a patient was physically,
8 chemically or restrained by equipment that they were
9 not to be restrained in the prone position?

10 MR. BISHOP: Objection to form. You
11 can answer.

12 THE WITNESS: I don't know that there
13 was a protocol for that. At this point in time I
14 don't recall.

15 BY MR. BERGER:

16 Q. All right. In general, would you
17 agree that standard of nursing care requires that
18 patients who are restrained must be restrained on
19 their backs and not on their chest and stomachs?

20 A. In general, I would agree with that.

21 Q. What's the qualification in general,
22 what does that mean?

23 A. That in most cases, most scenarios,
24 that would be -- the ideal position would not be to
25 have them on their stomachs but to have them on

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24

1 their back.

Sheila Phillips.txt

2 Q. Why is the ideal position to have a
3 patient on their back and not on their stomachs?

4 A. Better to assess the patient that
5 way, safety reasons.

6 Q. Safety for the patient; is that
7 right?

8 A. Yes. Yes.

9 Q. When the patient is assessed when
10 restrained on his or her back you can actually see
11 the chest rise and fall; is that right?

12 A. Yes.

13 Q. Is it easier for the nursing staff to
14 evaluate the patient to make sure that the patient
15 is getting enough oxygen when the patient is
16 restrained on his or her back?

17 A. Yes.

18 Q. If a patient is restrained on their
19 stomachs how does a nursing staff -- how do you
20 determine whether or not the patient is able to
21 breathe and getting enough oxygen?

22 A. If the patient's talking to me I
23 would be making sure to be close to see whether
24 they're breathing, hear whether they're breathing,
25 feel whether they're breathing. I -- those would be

Sheila Phillips.txt

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25

1 the ways.

2 Q. Have you had experience, other than
3 the experience of Brett Sexton, of restraints on
4 patients and restraining a patient when the patient
5 is on his stomach?

6 A. No.

7 Q. Would the Brett Sexton case be the
8 first time in your career that you saw a patient
9 restrained on his stomach?

10 MR. BISHOP: Objection to form. You
11 can answer.

12 THE WITNESS: Yes.

13 BY MR. BERGER:

14 Q. I'm going to ask you some specific
15 questions about Mr. Sexton but now I'm just sticking
16 with general information. Had you worked with the
17 security guards at Cape Regional before -- Neilson,
18 Young and -- hold on. I'm sorry.

19 MR. BISHOP: Shaw.

20 BY MR. BERGER:

21 Q. Let me break it down. Had you ever
22 worked --

Sheila Phillips.txt

23 MR. BERGER: Yes.

24 MR. BISHOP: Mike, I'm sorry. You
25 were looking for the third name. I believe it was

26

1 Shaw.

2 MR. BERGER: Shane Shaw, yes.

3 BY MR. BERGER:

4 Q. Had you ever worked with Shane Shaw
5 before your encounter with Brett Sexton?

6 A. I had worked with all those security
7 guards. I was not sure which ones which names they
8 were. I didn't know who was who.

9 Q. Under what circumstances had you
10 worked with the security guards?

11 A. When they did their rounding and down
12 in the ED when we had patients that needed security
13 to come and intervene. They were in the hospital
14 doing their job. I saw them around.

15 Q. Where did you spend most of your time
16 when you worked at Cape Regional as a floating
17 nurse?

18 A. There was no most of the time. I
19 worked on all the units and I couldn't tell you if

Sheila Phillips.txt

20 there was a most of the time anywhere.

21 Q. Before your encounter with Brett

22 Sexton had you worked with Nurse Ratti?

23 A. Yes.

24 Q. On the night of July 15th --

25 July 14th, July 15th was Nurse Ratti your

27

1 supervisor?

2 A. She was the charge nurse on that

3 unit, yes.

4 Q. What does it mean to be a charge

5 nurse?

6 A. She was the nurse designated that

7 night on that unit that would be the go-between

8 between the house supervisor. If there were any

9 problems that's who we would go to with them. If

10 patients were going to be admitted to the floor she

11 would choose what room they were going to.

12 Q. Was the supervisor that night Pat

13 Zaffiri?

14 A. Yes.

15 Q. Had you worked with Pat Zaffiri

16 before that night?

Sheila Phillips.txt

17 A. Yes.

18 Q. As a floating nurse were you required
19 to undergo any training at all at Cape Regional
20 Hospital?

21 A. Yes.

22 Q. Could you describe the training that
23 you were required to undergo?

24 A. The standard training that all nurses
25 go through whenever they're hired at any hospital,

28

1 computer training, policy training, education to
2 anything specific about that hospital, just standard
3 new hire training.

4 Q. Can you tell me whether you underwent
5 any training whatsoever about restraints during the
6 year that you were at Cape Regional Hospital?

7 A. I believe so but I don't recall
8 specifically.

9 Q. For example, how did you know or how
10 do you know that patients are to be restrained on
11 their backs when they are restrained either
12 physically, chemically? How do you know that?

13 A. I'm sure there's education that tells

Sheila Phillips.txt

14 us that that I have gone through at every hospital.

15 Q. Before your encounter with Brett

16 Sexton on July 14th and 15th had you been involved

17 with any patients who had to be physically

18 restrained by security?

19 A. I don't recall if I was specifically

20 involved. I was present at times when patients were

21 restrained by security.

22 Q. Was your involvement with Brett

23 Sexton the first time that you had ever been

24 physically involved with physically restraining a

25 patient?

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1 A. No.

2 Q. On how many -- let me ask this. Were

3 you physically involved with the physical restraint

4 of Brett Sexton on July 14th and July 15th?

5 A. Yes.

6 Q. When you were physically restraining

7 Brett Sexton what side of the bed were you on, his

8 right side or his left side?

9 A. If you were standing at the foot of

10 the bed I was on the right side.

Sheila Phillips.txt

11 Q. What side was his IV on?

12 A. His IV was on his left arm.

13 Q. We're going to get into more detail
14 but I just wanted to clear that up. You were on the
15 right side, his IV was on the left; is that correct?

16 A. Yes. I was not on -- I was on the
17 right side of the bed. The IV was in his left arm.

18 Q. So was the IV on your side of the bed
19 or the other side of the bed?

20 A. The IV was on the other side of the
21 bed.

22 Q. Was Brett Sexton connected to
23 telemetry at that time?

24 A. I don't recall.

25 Q. Do you remember anybody from

30

1 telemetry ever entering Brett Sexton's room?

2 A. I don't know who entered the room.

3 Q. Do you know a telemetry tech named
4 China Farlow?

5 A. I do.

6 Q. Do you know what telemetry does?

7 A. I do.

Sheila Phillips.txt

8 Q. Tell me what telemetry does.

9 A. A patient wears a heart monitor that
10 shows their cardiac rhythm on a screen, sometimes in
11 the room, sometimes at a nurses station, and it's a
12 continuous monitoring of the electrical current of
13 the patient's heart.

14 Q. Does telemetry also measure the beats
15 per minute of the patient's heart?

16 A. Yes.

17 Q. What is your understanding of what a
18 telemetry tech does during the course of her shift?

19 A. They monitor all of the patients who
20 are on cardiac monitors. They monitor the screens
21 at the nurses station or wherever it's located and
22 watch all of the heart rates and notify if there's
23 anything out of the ordinary. They chart or keep
24 track of any changes, any -- or any nonchanges of
25 the cardiac readout.

♀

31

1 Q. You testify that the telemetry techs
2 notify. Who do they notify if there is a change or
3 abnormality?

4 A. Probably the nurse that has the

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5 patient or the charge nurse.

6 Q. How does that notification take
7 place?

8 A. Verbally.

9 Q. Is that by telephone or face-to-face
10 usually?

11 A. On that unit it would have been face
12 to face because the monitor was located in the
13 nurses station.

14 Q. What unit was Brett Sexton on that
15 night?

16 A. PCU.

17 Q. What is PCU?

18 A. I'm trying -- I don't recall what it
19 stands for in that hospital.

20 Q. Why -- I'm sorry. I didn't mean to
21 interrupt you. Go ahead.

22 A. That's okay. I don't recall what it
23 stands for in that hospital.

24 Q. Do you know what patients are usually
25 in PCU or why they're in PCU?

♀

32

1 A. I believe they were mostly all

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2 cardiac monitored patients.

3 Q. Do you remember Brett Sexton
4 attempting to urinate in the commode at the side of
5 the bed?

6 A. Yes.

7 Q. Do you remember him having difficulty
8 in being steady at that time, physically steady on
9 his feet?

10 A. Yes.

11 Q. Do you remember Brett Sexton missing
12 the commode and a puddle of urine was on the floor
13 and urine was on his gown as well?

14 A. Yes.

15 Q. Did you think at that time that he
16 was doing that intentionally or because he was
17 unsteady and confused?

18 A. Because he was unsteady and confused.

19 Q. Do you remember the nasal cannula
20 falling into the puddle of urine?

21 A. I do not.

22 Q. Do you know whether or not he was on
23 a nasal cannula that night?

24 A. I do not recall.

25 Q. Do you know who Jennifer Parsons --

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♀

33

1 strike that.

2 Do you know who Jessica Parsons is?

3 A. I believe she was the tech.

4 Q. Do you remember Jessica Parsons
5 stooping down and retrieving that nasal cannula from
6 a puddle of urine?

7 A. I do not.

8 Q. Did you help clean Brett Sexton off
9 after he had this accident with his urination?

10 A. Yes.

11 Q. And you, in fact, helped change his
12 gown as well; is that right?

13 A. Yes.

14 Q. When you were changing his gown was
15 he cooperative enough that you were able to change
16 his gown without difficulty?

17 A. No.

18 Q. What do you remember about changing
19 his gown?

20 A. I remember trying to reorient him in
21 coaxing him to have a seat on the edge of the bed.
22 I remember trying to reorient him and tell him he

Sheila Phillips.txt

23 was in the hospital and ask him if it would be okay
24 if we changed his gown. He allowed us to do that
25 but was not really -- didn't seem to be really aware

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34

1 completely of what we were doing.

2 Q. What do you mean he didn't seem to be
3 completely aware?

4 A. He continued to talk about random
5 things, that he needed to leave, that he needed to
6 take care of his son, Zachary, that he just was not
7 aware of the present situation that was going on.

8 Q. Did you believe at the time that he
9 was aware that he was in a hospital?

10 A. No.

11 Q. What made you understand that he --
12 strike that.

13 What made you think that he did not
14 understand that he was in a hospital?

15 A. I asked him if he knew where he was I
16 believe. I explained that he was in the hospital
17 and he continued to just try to leave without any
18 regard to that he had the IV line in his arm, that
19 he was wet with urination, that he was -- that I was

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20 a nurse. He just didn't -- he didn't respond
21 appropriately to any questions or comments or
22 anything that we were trying to get him to do.

23 Q. Would you describe him as being out
24 of it?

25 A. Yes.

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35

1 Q. Would you describe him at that time
2 as being confused?

3 A. Yes.

4 Q. Do you know what the DTs are?

5 A. Yes.

6 Q. What are the DTs?

7 A. When somebody is detoxing from
8 alcohol or drugs symptoms of them not having the
9 stuff they're used to having in their system.

10 Q. Did you believe at that time on
11 July 14, 2013 that Brett Sexton was in the throes of
12 the DTs?

13 MR. BISHOP: Objection to form. You
14 can answer.

15 THE WITNESS: I had no idea of Brett
16 Sexton's admitting diagnosis or anything else

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17 medical about him. I heard the commotion in the
18 room and went in to see if I could be of assistance,
19 so I had no idea what was wrong with Mr. Sexton.

20 BY MR. BERGER:

21 Q. All right. So is it accurate to say
22 that you were not Mr. Sexton's nurse that night?

23 A. I was not Mr. Sexton's nurse that
24 night.

25 Q. Do you know who was Mr. Sexton's

36

1 nurse that night?

2 A. I do and offhand I can't remember
3 what her name was. Leah.

4 Q. Leah Lombardo?

5 A. Yeah. I did not know that at the
6 time. I knew that afterwards.

7 Q. When you came into Brett Sexton's
8 room where did you come from?

9 A. The hallway.

10 Q. What were you doing in the hallway?

11 A. We have computers -- we had computers
12 on wheels. Somebody had used my computer and pulled
13 it into that side of the unit in that hallway. My

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14 patients were in the other hallway. I was going to
15 retrieve my computer.

16 Q. Were you assigned to the PCU that
17 night?

18 A. Yes.

19 Q. Had you worked in the PCU before?

20 A. Yes.

21 Q. Were you very familiar with the
22 workings of the PCU that night?

23 A. Yes.

24 Q. When did you start working at Cape
25 Regional and when did you stop working at Cape

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37

1 Regional?

2 A. I started working at Cape Regional I
3 believe in 200 -- I'm going to say the beginning of
4 2012 or the end of 2011 I think, and I quit working
5 there at the end of 2013. I was there for
6 approximately one year.

7 Q. Can you -- have you reviewed the
8 chart in preparation for the deposition, Brett
9 Sexton's chart?

10 A. I have only reviewed my note.

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11 Q. Did you review Kristina Ratti's note
12 at the same time since they're on the same page?

13 A. I did not.

14 Q. Have you ever had any discussions
15 with Kristina Ratti about Brett Sexton?

16 A. The only thing that Kristina Ratti
17 discussed subsequent to what happened was how
18 afraid, how scared we were, how upset we were. We
19 did not discuss actually what happened other than,
20 you know, going to the police station and just being
21 upset.

22 Q. When you went to the police station
23 did you go to the police station that night?

24 A. We went the first thing in the
25 morning after we were finished with our shift,

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1 Kristina and I did.

2 Q. Did you have any discussions with
3 anybody about what happened that night and how it
4 occurred other than the police the next morning?

5 A. No, just about how upset we were and
6 how shocked we were.

7 Q. I understand why you were upset. Can

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8 you tell me why you were shocked?

9 A. Because I had never been involved in
10 anything that happened like that before because up
11 until the moment that he relaxed he was fine and
12 then he wasn't and it just was completely
13 unexpected.

14 Q. So about what time did you enter his
15 room?

16 A. I can only give an approximate time.
17 I don't know exactly what time I entered his room.
18 When I went to retrieve my computer it was to give
19 midnight medications to my patients.

20 Q. So would it have been just before
21 midnight?

22 A. It was around midnight.

23 Q. Fair enough. When you entered Brett
24 Sexton's room around midnight you testified that you
25 heard commotion and that is why you entered the

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1 room; is that accurate?

2 A. Yes.

3 Q. When you first entered the room
4 around midnight what did you see?

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5 A. I saw Mr. Sexton standing in front of
6 a bedside commode with Nurse Ratti and she was
7 trying to throw some towels on the floor because he
8 was urinating on the floor and she needed more
9 towels, and I went in to help steady Mr. Sexton
10 while she grabbed more towels.

11 Q. Was it just the two of you, Nurse
12 Ratti and you, initially when you entered the room?

13 A. No. The tech who was assigned to sit
14 with Mr. Sexton was in there and a security guard
15 was in there.

16 Q. Which security guard was in there, do
17 you remember?

18 A. Again, I didn't know the security
19 guards by name. I know them to see him. I don't
20 know what his name was, is.

21 Q. Was the tech standing when you
22 entered the room?

23 A. I don't recall.

24 Q. Was the security guard standing when
25 you entered the room?

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1 A. Yes.

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2 Q. Was anybody holding onto Mr. Sexton
3 when you entered the room?

4 A. I believe whenever I first initially
5 entered the room Kristina Ratti had a hand on him to
6 steady him as she was trying to throw towels on the
7 floor to keep him from slipping.

8 Q. Do you know that unsteadiness is a
9 symptom of the DTs?

10 A. Yes.

11 Q. Do you know that confusion is a
12 symptom of the DTs?

13 A. Yes.

14 Q. Did you hear Mr. Sexton use the word
15 hotel to describe where he was?

16 A. Yes.

17 Q. As you saw it did he think -- Mr.
18 Sexton think that he was in a hotel at that time?

19 A. Yes.

20 Q. He was attached to an IV; is that
21 right or I should say --

22 A. Yes.

23 Q. -- an IV was attached to him?

24 A. Yeah. He had an IV in his arm and he
25 was attached to some fluids.

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1 Q. Where was the IV attached in his arm?

2 A. It was in his left arm. I'm not sure
3 exactly where.

4 Q. Do you know if it was his hand or if
5 it was at his elbow?

6 A. I don't recall.

7 Q. Was the IV on wheels?

8 A. I don't recall that either.

9 Q. When he was standing up when you came
10 into the room he was still attached to the IV; is
11 that right?

12 A. Yes.

13 Q. Let me represent to you that he was
14 also attached to telemetry. How can you be attached
15 to telemetry and still stand up as a patient?

16 A. You can have a box. It's -- I'm
17 trying to think what it's called. They can have a
18 box that's attached to the wires that are attached
19 -- it's not -- it's cordless, it's not attached to
20 anything. It's in the pocket of the gown.

21 Q. So telemetry is wireless?

22 A. Sometimes.

Sheila Phillips.txt

23 Q. If telemetry -- do you know whether
24 or not on that floor at the PCU in 2013 whether or
25 not there was a wired telemetry or cordless

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1 telemetry?

2 A. I do remember there were cordless. I
3 don't recall if there were also wired ones or not.

4 Q. So your memory is that the patients
5 in the PCU in 2013 at Cape Regional definitely had
6 the availability of wireless telemetry?

7 A. I believe so.

8 Q. Did you assist in cleaning up any of
9 the urine that had puddled on the floor?

10 A. I don't recall. I may have helped
11 push a towel around. I was focused on Mr. Sexton.

12 Q. Did anybody else help you change his
13 gown?

14 A. I don't recall.

15 Q. When you changed Mr. Sexton's gown
16 was he standing up or sitting on the bed?

17 A. He was sitting on the edge of the
18 bed.

19 Q. Was it a typical hospital gown which

Sheila Phillips.txt

20 ties in the back?

21 A. Yes.

22 Q. Those hospital gowns which tie in the
23 back you can see the patient's -- the back -- strike
24 that.

25 Was it a typical hospital gown where

43

1 you could see the patient's back?

2 A. Yes.

3 Q. Can you see the patient's neck as
4 well in that type of hospital gown?

5 A. Yes.

6 Q. After you changed his gown what
7 happened next?

8 A. Mr. Sexton again stood up from the
9 bed and tried to leave the room. He became
10 combative. I tried to reorient him back to the bed.
11 I don't recall the exact conversation and stuff
12 other than trying to tell him you're in the
13 hospital, you've got an IV, don't pull it out,
14 please sit down, trying to get him to get back on
15 the bed. I believe I did coax him back to the bed a
16 second time.

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17 He did during that time, and I don't
18 remember exactly when, when I was standing in front
19 of him had grabbed my arm at one point. He did not
20 try to strike me or anything but he grabbed my arm.
21 Again, I believe I coaxed him back to the bed. He
22 sat for a minute and then I believe he got up again
23 and then started to be more combative and forceful
24 about leaving. The security guard then stepped up
25 and I believe he grabbed the security guard again

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1 not to hit, just grabbed an arm or something and
2 then sort of plopped himself back on the bed and
3 kicked at the security and that's when he became
4 extremely combative.

5 Q. When you testify he became extremely
6 combative was he on the bed when he became extremely
7 combative?

8 A. Yes, he was laying -- he was laying
9 on the bed, if I recall, and kicking at the guard
10 and thrashing about and, you know, just saying
11 things incoherently about needing to leave and
12 needing to go take care of things.

13 Q. Did Mr. Sexton's IV ever come out

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14 from the time that you entered the room until the
15 time that he was declared under the code?

16 A. I don't believe so.

17 Q. So let me just back up and make sure
18 that I understand your description of what happened.
19 You coaxed him onto the bed to change his gown and
20 he did sit on the bed for that changing of the gown;
21 is that right?

22 A. Yes.

23 Q. He got up after his gown was changed
24 and attempted to leave the room, correct?

25 A. Yes.

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45

1 Q. Was it at that time that he grabbed
2 your arm?

3 A. I believe so.

4 Q. When he grabbed your arm did he grab
5 your right arm or your left arm?

6 A. My right arm.

7 Q. Did he grab your right arm with his
8 left hand?

9 A. Yes.

10 Q. When he grabbed your left arm did you

Sheila Phillips.txt

11 feel that he was attempting to assault you or just
12 grabbing your arm?

13 MR. BISHOP: Mike, I think you
14 reversed it.

15 THE WITNESS: It was my right arm.
16 You just asked if he grabbed my left arm.

17 BY MR. BERGER:

18 Q. Okay. Thank you.

19 A. He grabbed my right arm.

20 Q. Yes, I'm sorry. So let me rephrase
21 the question.

22 At the moment that he grabbed your
23 right arm did you feel threatened and under assault
24 or did you feel that he was merely grabbing your arm
25 to plead his case?

46

1 MR. BISHOP: Objection to form. You
2 can answer.

3 THE WITNESS: I did not feel
4 threatened. I felt that he just didn't know what he
5 was doing and he was just trying to leave.

6 BY MR. BERGER:

7 Q. All right. When he grabbed your

Sheila Phillips.txt

8 right arm were you able to release his hands from
9 your arm?

10 A. Yes.

11 Q. Did that release require any -- did
12 you push his hand away? Do you remember how that
13 happened?

14 A. I don't remember exactly how it
15 happened. I don't believe that it was a forceful
16 thing. I believe that in his confusion he let go.
17 In my trying to reorient him and talk him down he
18 let go of my arm but continued to try to push
19 through.

20 Q. All right. So, as I understand your
21 testimony, after he released your right arm he did
22 end up sitting down again on the bed; is that right?

23 A. He sat down on the -- yes, yes.

24 Q. This third time when he sat down on
25 the bed is that when he went back on the bed and

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47

1 started to become assaultive and combative?

2 A. Yes.

3 Q. Did he kick you in any way?

4 A. He did not.

Sheila Phillips.txt

5 Q. Did he kick Leah Lombardo in any way?

6 A. No.

7 Q. Was Leah Lombardo in the room at that
8 time?

9 A. I don't believe so.

10 Q. Was Nurse Ratti in the room at that
11 time?

12 A. I don't believe so.

13 Q. Had she left the room at some point?

14 A. Yes.

15 Q. Do you know why she left the room?

16 A. To call the doctor. I don't know
17 exactly why she left the room. I know she was
18 trying to get help with what to do with the patient,
19 call the doctor, call the nurse supervisor. I'm not
20 sure exactly what she was doing when she left the
21 room.

22 Q. All right. There's a document which
23 is one of the medical records which is from the
24 orders that night. I'm just going to mark it as an
25 exhibit. Bear with me.

♀

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1 (Whereupon, document was marked

Sheila Phillips.txt

2 Phillips 1 for identification.)

3 BY MR. BERGER:

4 Q. We have marked it Phillips 1 for
5 identification. I'm just going to come over to the
6 camera and just show you what it is and I'll
7 represent to you what it is. What it is is an order
8 at 12:15 a.m. on July 15, 2013.

9 MR. BISHOP: Mike, we have it here.
10 She has it in front of her.

11 MR. BERGER: Okay. I feel like I
12 just got set up.

13 MR. BISHOP: I'm just glad you had
14 that piece of paper in front of you.

15 BY MR. BERGER:

16 Q. Do you have that order in front of
17 you?

18 A. I do.

19 Q. What is a verbal -- what is a TVO?

20 A. It's a telephone verbal order.

21 Q. All right. Is that supposed to be
22 filled out at the time that the nurse calls the
23 physician?

24 A. If the physician gives her an order,
25 yes.

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1 Q. All right. So by looking at this
2 document would you agree that what happened at 12:15
3 a.m. is that Nurse Ratti called Dr. Steinberg and
4 got a stat verbal order for Ativan and Haldol?

5 A. I can attest that she got -- well,
6 based on what she put here she got an order from Dr.
7 Steinberg. I don't know what time she got that
8 order.

9 Q. Do you see the time that's listed on
10 this particular order?

11 A. I do.

12 Q. Is it 12:15 a.m.?

13 A. It is.

14 Q. As a nurse are you supposed to write
15 down the date and time of a verbal order on a
16 document?

17 A. Yes.

18 Q. And that becomes an official record
19 of the hospital; is that right?

20 A. Yes.

21 Q. To your recollection and memory would
22 it have been about 15 minutes from the time that you

Sheila Phillips.txt

23 came in until the time that Nurse Ratti left to go
24 get a verbal telephone order -- 10, 15 minutes?

25 A. It may have been about that. I can't

50

1 say specifically.

2 Q. All right. In any event, you do
3 remember Nurse Ratti leaving the room and do you
4 remember Nurse Ratti coming back into the room with
5 medication?

6 A. I do.

7 Q. During the period of time -- strike
8 that.

9 When Nurse Ratti left the room to get
10 medication that was Ativan and Haldol, correct?

11 A. Yes. At the time I didn't know
12 exactly what her orders were but I knew she was
13 getting medication.

14 Q. And was she getting medication in
15 order in attempt to calm Brett Sexton down?

16 A. Yes.

17 Q. At that time was Brett Sexton on the
18 bed at the time that she left the room to get
19 medication?

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20 A. I don't recall whether she left to go
21 get medication when we were still trying to talk him
22 down or if she left to get the medication after he
23 was on the bed. I don't know.

24 Q. All right. When Brett Sexton was on
25 the bed I asked if he kicked you and your answer was

51

1 no, he did not kick you, correct?

2 A. Yes.

3 Q. Do you know whether Brett Sexton
4 kicked Jessica Parsons, the aide?

5 A. I do not know.

6 Q. Do you know whether or not Brett
7 Sexton kicked a security guard?

8 A. Yes.

9 Q. Do you know which foot he used to
10 kick the security guard?

11 A. One of his feet.

12 Q. Okay. Do you know where the security
13 guard was kicked?

14 A. I believe it was in the leg.

15 Q. In response to the security guard
16 being kicked did the security guard grab Brett

Sheila Phillips.txt

17 Sexton's leg?

18 A. Yes. Not easily. It took him a
19 little bit to get ahold of the leg. Mr. Sexton was
20 kicking both legs in the air.

21 Q. The security guard actually got ahold
22 of both of Brett Sexton's legs at that time; is that
23 right?

24 A. I was at the top of the bed facing
25 Mr. Sexton. I don't know exactly what the security

52

1 guard had ahold of.

2 Q. Were you at the top of the bed near
3 Brett Sexton's head?

4 A. Yes.

5 Q. Was Brett Sexton on his back at that
6 time?

7 A. Yes.

8 Q. Was Brett Sexton's right arm near
9 you?

10 A. No.

11 Q. Why not?

12 A. Because his left arm was near me.

13 Q. The left arm is the arm where the IV

Sheila Phillips.txt

14 was; is that right?

15 A. Yes.

16 Q. Did he attempt to swing at you with
17 his left arm?

18 A. He did not attempt to swing at me at
19 any time that I recall.

20 Q. So was most of the resistance by Mr.
21 Brett Sexton with his legs -- with both legs?

22 A. Yes. He was trying to push -- he was
23 trying to push me away so that he could try to get
24 up and leave and kick at the guard so that he could
25 get off the bed and leave.

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1 Q. When he tried to push you away did
2 his hand touch you?

3 A. Yes.

4 Q. Was it once, more than once, do you
5 remember?

6 A. I do not recall.

7 Q. When he pushed you away did he push
8 you away with his left arm or his right arm?

9 A. I don't recall.

10 Q. Were you able to back up and get out

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11 of the way of that push?

12 A. I was not trying to back up. I was
13 trying to keep Mr. Sexton safe. I didn't want him
14 to fall off the bed. I didn't want him to get up
15 and leave. I didn't want him to pull his IV out.

16 Q. Did you touch Brett Sexton at that
17 time at all? Did you lay any hands on him?

18 A. Yes. I was trying to help control
19 his arm movements and keep him from losing that IV.

20 Q. All right. So you were then --
21 strike that.

22 Were you then holding his left arm in
23 some way so that he would not lose his IV?

24 A. I don't recall exactly. I don't
25 recall.

♀

54

1 Q. If you were trying to make sure he
2 wasn't losing his IV were you in some way physically
3 touching him?

4 A. His arms and hands were, you know,
5 pushing around and flying around trying to -- and I
6 was trying to calm him down verbally as well as
7 standing close to the bed to keep him from getting

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8 up and pulling -- to pull that IV out. I don't
9 recall if the fluids were on a pole or if they were
10 on the bed pole, but they were on the other side of
11 the bed I believe. So trying to keep him from
12 coming so far that he would pull that IV out.

13 Q. Were you --

14 A. He was mostly focused on the guard.

15 Q. Right. Were you able to maintain
16 control of his left arm and shoulder in such a way
17 that he did not pull his IV out or away from the
18 fluid bag and pole?

19 A. By standing next to the bed where he
20 was and not allowing him to get any further from
21 that IV pole it kept him from stretching that IV
22 line and pulling it out. Other than that I don't
23 recall what I held, didn't hold, what he touched or
24 I didn't touch.

25 Q. All right. Is it possible that you

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1 didn't even touch him at all at that time and you
2 were merely a barrier from him getting farther away
3 from the pole?

4 A. It's possible.

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5 Q. From what you have testified it
6 sounds like you were not physically restraining him
7 at that moment in time; is that accurate?

8 A. That's accurate.

9 Q. However, the guard was physically
10 restraining him at that time by at least attempting
11 to grab his legs and feet?

12 A. He was attempting to grab his legs
13 and feet.

14 Q. At some point this guard was
15 successful by himself in corralling and grasping
16 both of Mr. Sexton's legs; is that true?

17 A. I don't know what he got ahold of.

18 Q. Do you remember two security guards
19 coming into the room to assist in handling Mr.
20 Sexton?

21 A. Yes.

22 Q. When the two security guards came in
23 was Mr. Sexton on his back or his stomach?

24 A. Mr. Sexton was on his stomach.

25 Q. So at some point -- let me ask this.

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1 When Mr. Sexton was kicking and you were at the side

Sheila Phillips.txt

2 of the bed next to his left arm was he on his back
3 or his stomach at that time?

4 A. He was on his back at that time.

5 Q. How did he flip over onto his
6 stomach?

7 A. He flipped himself over onto his
8 stomach.

9 Q. Okay. Was he on his stomach then at
10 the time that the guards came into the room?

11 A. Yes.

12 Q. So if he flipped himself over then
13 you were next to his right arm at that point; is
14 that right?

15 A. Yes.

16 Q. And on his right arm and right side
17 there was no IV, correct?

18 A. Correct.

19 Q. The IV was still on the left side; is
20 that right?

21 A. Yes.

22 Q. Did one of the security guards come
23 over to the left side and restrain Mr. Sexton so
24 that his IV would be safe?

25 A. Not immediately but yes.

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1 Q. What did he do when he first came in
2 there?

3 A. He came to that side of the bed and
4 was waiting to give assistance when needed.

5 Q. Did you ever see that particular
6 security guard put his hands on Mr. Sexton's left
7 arm or left shoulder?

8 A. Yes.

9 Q. What did you observe? What did you
10 see?

11 A. That he -- the security guard held
12 the left arm to keep him from pulling out the IV.

13 Q. For how long a period of time was he
14 holding -- the security guard holding Mr. Sexton's
15 left arm?

16 A. I don't know exactly how long it was.

17 Q. Do you know whether it -- would you
18 describe it a short period of time or would you
19 describe it from pretty much the time he came in
20 until the time the code was called?

21 A. Not from the time he came in, no, but
22 until the code was called, yes.

Sheila Phillips.txt

23 Q. Did you instruct that security guard
24 to do anything when he first came into the room?

25 A. I asked him to just stand there and

58

1 be ready if we needed him to get ahold of that left
2 arm.

3 Q. At some point did you instruct him to
4 grab hold of Brett Sexton's left arm?

5 A. I asked him to hold Brett Sexton's
6 left arm, yes.

7 Q. What prompted you to give that
8 instruction?

9 A. Because I couldn't hold it anymore.

10 Q. Were you holding his left arm while
11 you were on the right side of the bed?

12 A. Yes.

13 Q. Would you have been draped across Mr.
14 Sexton's back in order to do that?

15 A. I was not draped across his back, no.

16 Q. Were you leaning over Mr. Sexton's
17 back in order to secure his left arm and protect the
18 IV?

19 A. No. I was leaned into his right

Sheila Phillips.txt

20 shoulder and my left arm was stretched across his
21 back.

22 Q. I see. So in order for you to get
23 relief from that position you instructed the
24 security guard to grab his left arm; is that right?

25 A. Yes.

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1 Q. In that position when he was on his
2 stomach and you were securing his left arm and the
3 IV were you using any force to do so or were you
4 merely steadying his left arm for movement?

5 A. I was -- I was holding his left
6 elbow. He had his hands -- his arms pressed against
7 the bed and I had held his left elbow so that he
8 couldn't really move his left arm away from the IV,
9 from the IV line.

10 Q. When you said his left arm was
11 against the bed I'm not sure what you mean by that.

12 A. Are you familiar with planking, an
13 exercise where you plank, you put your forearms down
14 and you steady yourself there for however long you
15 can?

16 Q. Okay.

Sheila Phillips.txt

17 A. He was, in essence, had his arms in a
18 planking position.

19 Q. So then if you were on the right --
20 his right side leaning across to grab his elbow was
21 his head and shoulders in your way in order to
22 secure his left elbow because that's planking?

23 A. I'm sorry. I don't understand.

24 Q. Yeah, because if he's planking and
25 you're next to his head it seems like his head and

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1 shoulders would be in your way in order to go across
2 to secure his left arm; is that right?

3 A. No. My shoulders were at his
4 shoulders.

5 Q. Okay.

6 A. I was at the same -- I was not above
7 his shoulders. I was side by side to him.

8 Q. All right. So what I'm trying to
9 picture -- now just think about this for a minute
10 because I know you're trying to remember how this
11 went down. If he's planking and you're at his
12 shoulders then your body has to go over his
13 shoulders in order to get his left elbow at some

Sheila Phillips.txt

14 point; is that true or not?

15 A. Again, I'm not sure I understand
16 exactly your question. He wasn't technically
17 planking. His arms were in a planking position. He
18 wasn't push -- he was pushing himself up and down
19 and in the time that I got hold he was on the
20 downward movement and my shoulders were at his
21 shoulder level and I was to his right side. I had
22 his right arm pinned against his side with my chest
23 and my left arm was across and got hold of his elbow
24 so that he couldn't push up and pull away from that
25 IV line.

♀

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1 Q. Was his left arm then free as
2 compared to his right arm?

3 A. Not at that -- as compared to his
4 right arm it was more free.

5 Q. Okay.

6 A. Yes.

7 Q. When you were across his back
8 securing his left arm were you using one hand or two
9 hands?

10 A. Only my arm, my left arm was across

Sheila Phillips.txt

11 his back and I was using my left hand.

12 Q. All right. Where was your right hand
13 and your right arm?

14 A. My right hand and right arm were
15 probably on the bed on the right side.

16 Q. Were your right arm and hand ever on
17 his back on the right side?

18 A. No, no.

19 Q. He could have easily with his right
20 arm in that plank position arched up and knocked you
21 off of his left arm -- he could have done that,
22 right?

23 A. He tried that. He tried that the
24 whole time.

25 Q. All right. But you were strong

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1 enough to resist that movement from him; is that
2 right?

3 A. I was, yes.

4 Q. It sounds like to me, and I could be
5 wrong about this, that you would have to use some
6 force on his left arm in order to make sure that he
7 didn't buck you away from his left arm; is that

Sheila Phillips.txt

8 accurate?

9 A. What do you mean by force?

10 Q. Well, if he tried to arch his head
11 and shoulders back in order to break your hold on
12 the left arm it seems that you would have to be
13 gripping the left arm firmly in order to prevent him
14 from breaking your hold; is that true?

15 MR. BISHOP: Objection to form. You
16 can answer.

17 THE WITNESS: I was -- I had -- when
18 he was on a downward before pushing up from the bed,
19 trying to push up, when he was on the downward part
20 of that I grabbed hold of his left elbow.

21 BY MR. BERGER:

22 Q. Okay.

23 A. So he could not push up like that
24 again because I had his elbow pulled up. I had his
25 elbow up.

♀

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2 Q. So with your left hand you had
3 grasped his elbow and you pulled his elbow up from
4 its location on the bed?

Sheila Phillips.txt

5 A. I did not pull it up. I just held
6 onto it.

7 Q. Was his elbow --

8 A. Because he was down. His elbow was
9 against his side.

10 Q. All right. Is it accurate to say
11 that his elbow and his forearm and his hand were not
12 resting on the bed when you had the grasp of his
13 left elbow?

14 A. His forearm and hand were still on
15 the bed. His elbow was not on the bed.

16 Q. Was his elbow winged out so that you
17 could grasp it?

18 A. I don't know what you mean winged
19 out.

20 Q. At an angle so that it was -- so that
21 the elbow was exposed.

22 A. Away from his body or close to his
23 body?

24 Q. Away from his body.

25 A. It was close to his body. It was

♀

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1 against his body.

Sheila Phillips.txt

2 Q. I don't mean to be disrespectful.

3 I'm just trying to picture this.

4 A. That's okay.

5 Q. And forgive me if I'm digging here
6 because I'm trying to picture how you can be on his
7 right side and grab his elbow if his elbow is tucked
8 against his body.

9 MR. BISHOP: Objection. I'm not sure
10 that's a question. It seems to be your issue.

11 MR. BERGER: Yeah, it could be. I'm
12 not denying that.

13 BY MR. BERGER:

14 Q. Is it your testimony that his
15 elbow -- left elbow was tucked against his body?

16 A. His left elbow was tucked against his
17 body.

18 Q. And was his left elbow at his left
19 side of his body?

20 A. Yes.

21 Q. And did you have a grasp of his left
22 bicep or his left elbow or his left forearm when you
23 had that control?

24 A. Left -- technically it might be left
25 bicep but close to the elbow, right above the bend

Sheila Phillips.txt

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1 of the elbow.

2 Q. All right. When the security guard
3 walked in at that time were you relieved to see that
4 security guard because you knew that there was help
5 for you at that point?

6 A. Yes. We had just gotten Mr. Sexton
7 under control and the security guard walked in and
8 yes, I was happy he was there.

9 Q. Okay. Would you describe the
10 position you were in when you were grabbing his left
11 elbow standing on the right side of the bed somewhat
12 physically awkward for you?

13 A. Yes, but not for the situation.

14 Q. Right. In other words, a security
15 guard on the left side of the bed would have been in
16 a less awkward position than you in securing the IV
17 because he wasn't crossing over the patient and the
18 bed, am I right about that?

19 A. Yes.

20 Q. So you see the security guard come
21 in, you then instruct the security guard please take
22 control of his left arm and elbow so that he doesn't

Sheila Phillips.txt

23 pull out the IV and I'll stay on the right side; is
24 that right?

25 A. Yes, eventually that is what I said.

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1 Q. When the security guard secured the
2 left elbow and the IV what did you do?

3 A. I continued to stay on the right side
4 and keep Mr. Sexton from trying to get up off the
5 bed from that side. I kept control of the right
6 arm.

7 Q. Did you also have control of his
8 upper right back by pressing against him with your
9 body?

10 A. I was pressed against his right
11 shoulder.

12 Q. Was it your left arm and left forearm
13 pressed against his upper right shoulder?

14 A. No.

15 Q. What part of your body was pressed
16 against his upper right shoulder?

17 A. My chest.

18 Q. Where was your -- what were you doing
19 with your hands at that time, if anything?

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20 A. I believe I was leaning on my right
21 arm on the bed with my chest on Mr. Sexton's right
22 shoulder and at that point my left arm was just
23 probably resting on his back and I was trying to
24 calm him, pat him, tell him we were trying to help
25 him.

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1 Q. Were you facing Mr. Sexton?
2 A. Yes.
3 Q. Did you hear any words come out of
4 his mouth when he was being -- strike that.
5 Would you agree that when the
6 security guard was restraining his legs the other
7 security guard was restraining his left arm and you
8 were restraining his right arm and right shoulder
9 that Mr. Sexton was being physically restrained by
10 you and the security staff at that time?
11 A. Yes.
12 Q. During that period of time when he
13 was being restrained did you hear any words come out
14 of his mouth?
15 A. Yes.
16 Q. What did he say?

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17 A. He continued to say he needed to
18 leave. He continued to tell us to get off of him.
19 He continued to say he had stuff he had to do.
20 Q. One of the security guards testified
21 that he was moaning during that period of time. Did
22 you hear any moaning?
23 A. Grunting, moaning.
24 Q. Yeah, grunting.
25 A. Yeah, both. Trying to push us off

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1 and to stop us from, you know, detaining him, yes.
2 Q. Did it occur to you at that time that
3 he might have difficulty breathing and expanding his
4 chest because he was chest down being restrained?
5 MR. BISHOP: Objection. There's been
6 no testimony at this point that he was chest down.
7 MR. BERGER: Let me rephrase the
8 question. I'll rephrase --
9 MR. BISHOP: She said he was in the
10 plank position.
11 MR. BERGER: I'll rephrase the
12 question, David.
13 BY MR. BERGER:

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14 Q. At any time was -- from the time that
15 he was physically restrained by you and the security
16 guards to the time the code was called was he ever
17 chest down?

18 A. He was facedown. His right arm was
19 under his chest, so his chest was not completely
20 pressed to the bed. His right arm was being pressed
21 underneath his chest by my body.

22 Q. All right. So your chest is pressing
23 on his back and his chest -- I'm sorry.

24 MR. BISHOP: Mike, you say her chest
25 is pressing his back and I think she was going to

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1 correct you. She has not testified to that. She
2 said her chest was pressing on his right shoulder.

3 MR. BERGER: Okay. I'm sorry --

4 MR. BISHOP: There's a difference.

5 MR. BERGER: I'm thinking that the
6 right shoulder is part of the back, that's all.

7 MR. BISHOP: I don't think that's how
8 she means it. Maybe you should clarify that, Mike.

9 MR. BERGER: Yeah, we need to clarify
10 that and thank you for bringing that up.

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11 BY MR. BERGER:

12 Q. When you were pressing against his
13 right shoulder I'm envisioning the right shoulder as
14 being part of the back. Am I right or am I wrong?

15 A. I would say that's incorrect. My
16 body was on this part of him, not on his back. I
17 was on his right shoulder, not his right back.

18 Q. All right. If his right arm is
19 tucked under his body his right arm and bicep is not
20 exposed to you, true?

21 A. It wasn't exposed to me because my
22 body was covering it also.

23 Q. So is it accurate to say that his
24 chest was pressing against his right forearm and
25 right hand at the time that you were restraining his

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1 upper right shoulder?

2 A. Not his hand. Forearm, yes.

3 Q. Where was his hand?

4 A. His hand was above his shoulder. So
5 it was in that plank position. He continued to push
6 up on the bed and try to push me off using his arms
7 at length. And that arm whenever he went down would

Sheila Phillips.txt

8 be under his right chest. His hand was not under
9 his right chest. It was not under his chest like
10 this.

11 Q. So his right hand was more toward his
12 head?

13 A. Yes. Neck, probably close to his
14 neck.

15 Q. Was there a point in time when he
16 stopped using words and then began to grunt and
17 moan?

18 A. No. He used words and grunting,
19 pushing and moaning trying to move. That continued.

20 Q. Was he pushing and resisting all the
21 way up until the time that the code was called?

22 A. Yes.

23 Q. Were you able to see -- strike that.

24 Do you know whether or not he was
25 kicking all the way up until the time the code was

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1 called?

2 A. I don't recall.

3 Q. Were you able to see his face during
4 the time that you were restraining him?

Sheila Phillips.txt

5 A. Yes.

6 Q. Did you ever see --

7 A. When he was facing me.

8 Q. All right. Did you ever see his face
9 start to turn blue?

10 A. No.

11 Q. You know when he was turned over his
12 face was blue and purple; is that right?

13 A. Yes.

14 Q. I'm trying to understand how you
15 missed that if you're staring at his face. How did
16 that happen?

17 MR. BISHOP: Objection. Mike, you're
18 assuming it was blue before the code was called or
19 immediately before the code.

20 MR. BERGER: Yeah, I am.

21 MR. BISHOP: You're suggesting she
22 missed something that there's been no testimony to
23 establish that, in fact, it was there.

24 BY MR. BERGER:

25 Q. Before somebody turns purple from

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1 lack of oxygen do they first turn red, do you know?

Sheila Phillips.txt

2 MR. BISHOP: Objection.

3 BY MR. BERGER:

4 Q. Do you know?

5 MR. BISHOP: You can answer if you
6 know.

7 THE WITNESS: All cases would be
8 different. Sometimes people get real pale.
9 Sometimes people -- it depends what the reason for
10 the lack of oxygen is. You know, if the heart rate
11 slows and they're not getting blood they might turn
12 white first, they might turn pale. If they're
13 obstructed they might just turn blue if somebody is
14 choking on something. So there's no specific
15 standard thing for that.

16 BY MR. BERGER:

17 Q. So let me ask this. Is it accurate
18 to say that you never noticed any change in color in
19 his face until Pat Zaffiri came in and said turn him
20 over?

21 A. Yes, he looked fine until we turned
22 him over.

23 Q. His face was totally normal color
24 until he was turned over, is that your testimony?

25 MR. BISHOP: Objection. That's not

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1 what she said. Mike, I know you're not trying to do
2 that but when you summarize like that and it's not
3 accurate that's not fair to this witness.

4 MR. BERGER: Oh, I think that was a
5 fair statement.

6 MR. BISHOP: No. You asked her
7 earlier if it was blue, she said no, and now you
8 suggested that she testified that there was no
9 change in his coloration during this resistance.
10 So --

11 MR. BERGER: Maybe -- I'm sorry.
12 Maybe I've taken a leap. Let me ask it this way.

13 BY MR. BERGER:

14 Q. Did you notice at any time from the
15 time that you were restraining his upper right
16 shoulder that his coloring in his face changed in
17 any way?

18 A. I did not.

19 Q. Did you -- were you able to see from
20 where you were the back of his neck?

21 A. Yes.

22 Q. Did you observe any change in color

Sheila Phillips.txt

23 in the back of his neck until -- at any time?

24 A. I did not.

25 Q. Did you ever see pictures of his

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74

1 autopsy?

2 A. I did not.

3 Q. When he was turned over was he turned
4 over at the instruction of Pat Zaffiri?

5 A. No.

6 Q. Who instructed that he be turned
7 over?

8 A. The patient relaxed and we started to
9 turn him over at the moment that he relaxed and she
10 walked into the room at the exact same time.

11 Q. Are you aware that he was given
12 Ativan at 12:25 a.m. from reviewing the record?

13 A. I'm aware that he was given Ativan.
14 I don't know the exact time.

15 Q. All right. Were you aware that about
16 the same time, 12:24 a.m., he was given Haldol?

17 A. I know that he was given Haldol. I
18 don't know what time and I believe the Haldol was
19 after the Ativan.

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20 Q. All right. Did you notice any change
21 in his behavior after the drugs were given to him?

22 A. There was no change in his behavior
23 after the first medication was given and it took a
24 minute or two before anything happened after the
25 second medication was given.

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1 Q. A minute or two after the second
2 medication was given what happened?

3 A. He continued to struggle against us
4 and then when he relaxed we turned him over.

5 Q. Did he start to relax a minute or two
6 after he was given the second medication?

7 A. I don't know the exact amount of time
8 but yes.

9 Q. Did you notice when he was turned --
10 did Nurse Ratti instruct you to turn him over or was
11 that your decision?

12 A. I don't recall. We just, you know --
13 I don't recall who stated turn him over or anything.
14 I just recall he relaxed and we turned him over.

15 Q. Were you concerned at all when he was
16 being physically restrained from the time all the

Sheila Phillips.txt

17 security guards came in and you then started
18 physically restraining his upper right shoulder that
19 he was having any difficulty in breathing?

20 A. No, I was not concerned. He was
21 talking, he was turning his head.

22 Q. What do you mean?

23 A. He was breathing.

24 Q. What do you mean he was turning his
25 head?

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1 A. He was able to pick his head up and
2 turn it right to left the whole time that we were
3 restraining him and continued to do so.

4 Q. Was there a pillow on the bed?

5 A. There was a pillow above his head at
6 the beginning and I had asked the tech to take it
7 off the bed at some point in time. It was off of
8 the bed.

9 Q. Why did you ask the tech to take it
10 off of the bed?

11 A. Because I didn't want -- it was not
12 serving any purpose. I didn't want it in the way.
13 I didn't want it to obstruct Mr. Sexton in any way.

Sheila Phillips.txt

14 Q. You're talking about obstructing his
15 breathing when he was chest down?

16 A. Breathing, anything. It was just --
17 it was above his head on the bed. It wasn't even
18 under his head. It wasn't -- it was just in the
19 way.

20 Q. What do you mean it was above his
21 head? Where was the pillow located?

22 A. At the top of the bed.

23 Q. Was it lying end on end on the top of
24 the bed or was it at an angle at the top of the bed?

25 A. I don't recall.

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1 Q. Was his head on the pillow at any
2 time that he was physically restrained?

3 A. It was not. It was not.

4 Q. I'm sorry. When he first went on his
5 back before he flipped over was his head on a
6 pillow?

7 A. No. He was in the center -- his
8 whole -- his torso was probably in the middle of the
9 bed rather than at the top of the bed where your
10 torso belongs.

Sheila Phillips.txt

11 Q. Just getting back to the time period
12 that he was being restrained at about the time that
13 he was given the medication, are you aware that
14 hospital policy required him to be physically
15 restrained on his back and not on his stomach and
16 chest?

17 MR. BISHOP: Objection to form but
18 you can answer.

19 THE WITNESS: I don't recall. I
20 would assume that was hospital policy. I don't
21 recall the specific policies of Cape Regional.

22 BY MR. BERGER:

23 Q. All right. So with three security
24 guards and you as the nurse did you consider
25 ordering that he be turned over onto his back while

78

1 he was restrained?

2 A. Not at that time, no.

3 Q. Why not?

4 A. I don't believe that we would have
5 been able to turn him over and keep him safe and
6 keep that IV intact. He was too combative.

7 Q. Was he thrashing around during that

Sheila Phillips.txt

8 period of time from the time just before the
9 medication was given?

10 A. Yes.

11 Q. In thrashing around do you know
12 whether or not he was kicking his legs?

13 A. I don't recall. I know he raised --
14 he would raise himself off the bed.

15 Q. You're aware that the Haldol was
16 given IM, intramuscularly?

17 A. Yes.

18 Q. Where was that injection site?

19 A. I don't know.

20 Q. Do you know whether or not the nurse
21 who gave the injection had any difficulty giving the
22 injection of Haldol?

23 A. I know that the patient was still
24 thrashing about and there's always a concern that
25 the person giving the injection would get stuck with

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1 the needle and I know that that was a concern at
2 that time.

3 Q. The injection was given successfully;
4 is that right?

Sheila Phillips.txt

5 A. I believe so.

6 Q. All right. His body was calm enough
7 in order to give that injection; is that true?

8 MR. BISHOP: Objection to form but
9 she can answer.

10 THE WITNESS: I can only say in this
11 profession we have given those injections when
12 patients aren't calm enough but we still get them
13 given.

14 BY MR. BERGER:

15 Q. So is the answer you don't know?

16 A. The answer is I don't know.

17 Q. Did you notice that when he was
18 turned over that his chest was also blue and purple?

19 A. I did not notice that.

20 Q. Did you notice his face was blue and
21 purple?

22 A. Yes.

23 Q. Do you know whether the back of his
24 neck was blue and purple?

25 A. I do not know.

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1 Q. When he relaxed just before you

Sheila Phillips.txt

2 turned him over do you know whether or not he was
3 breathing at that time?

4 A. I don't know.

5 Q. Was he monitored in any way when he
6 was physically restrained by the three security
7 guards and you?

8 A. Did the security guards and myself
9 monitor him or do you mean like the cardiac monitor
10 and things like that?

11 Q. Did you monitor Mr. Sexton while he
12 was being physically restrained by you and the three
13 security guards?

14 A. I continued to watch him, talk to
15 him, make sure that he was moving, breathing,
16 talking. I mean, that just went with -- it was an
17 automatic response to trying to calm him down and
18 continue to talk him into relaxing.

19 Q. So was he talking to you up until a
20 minute before you turned him over?

21 A. Yes.

22 Q. What was he saying before the code
23 was called, just before that? What was he talking
24 about?

25 A. Again, he was saying let me go, get

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1 off of me, I need to do stuff, I need to go.

2 Q. When you turned him over did you feel
3 like he was limp in any way?

4 A. Yes, that was the initial time we
5 realized that he was.

6 Q. Did you feel him to be limp a minute
7 before you turned him over?

8 A. No.

9 Q. Did you feel that he had his full
10 strength a minute before you turned him over?

11 A. Yes.

12 Q. Did you feel that he had all of his,
13 although confused, mental faculties before you
14 turned him over, a minute before you turned him
15 over?

16 A. Yes. His demeanor didn't change from
17 the time we started restraining him until the time
18 that he relaxed.

19 Q. Were you aware that when the second
20 and third security guard came in that there was a
21 security guard holding his right leg, a security
22 guard holding his left leg and then the third

Sheila Phillips.txt

23 security guard was on his left arm with the IV?

24 A. I don't know what the security guards

25 at the foot of the bed were doing. I was facing Mr.

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1 Sexton. I know the security guard on the left side

2 of the bed did hold Mr. Sexton's left arm.

3 Q. Where was your face in relation to

4 Mr. Sexton's face?

5 A. Right next to his face pretty much.

6 Q. Was your face next to his right ear?

7 A. Yes.

8 Q. Were you talking to Mr. Sexton the

9 entire time that he was restrained?

10 A. Yes.

11 Q. Did you consider that maybe he needed

12 more medication at any time?

13 A. At that time my only consideration

14 was keeping him safe and keeping him from tearing

15 out the IV.

16 Q. All right. Was it your decision or

17 Nurse Ratti's decision to continue restraining him

18 in the prone position until he was turned over?

19 A. Again, it wasn't a decision made by

Sheila Phillips.txt

20 anybody. It was when we thought it was safe to turn
21 him over that's when we turned him over.

22 Q. Would you explain to me why you
23 believed it was safe to maintain him in the prone
24 position from the time that three security guards
25 and you were physically restraining him?

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1 A. I'm sorry. Could you repeat that?

2 Q. Yes. Just in terms of -- strike
3 that.

4 Why did you believe it was safe to
5 restrain Mr. Sexton physically in the prone
6 position?

7 A. I don't think I ever said I believed
8 it was safe to hold him in a prone position.

9 Q. Would you agree that he was in the
10 prone position when he was being physically
11 restrained by you and the three security guards?

12 A. Yes.

13 Q. When you say you don't believe you
14 said it was safe. Do you believe it was unsafe for
15 you to maintain him in the prone position?

16 MR. BISHOP: Objection to form. You

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17 can answer.

18 THE WITNESS: I believe that in the
19 realm of restraining patients it's not the best way
20 to restrain somebody but in that situation that was,
21 unfortunately, the way that we were able to restrain
22 him due to him flipping himself over and I believe
23 that if we would have let him go and tried to turn
24 him he may have harmed somebody, harmed himself more
25 or pulled the IV that we were trying to save out.

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1 BY MR. BERGER:

2 Q. It sounds like one of your main goals
3 in restraining him in the prone position was to make
4 sure that the IV didn't pull out; is that true?

5 MR. BISHOP: Objection. You can
6 answer what your main goal was.

7 THE WITNESS: My main goal was to
8 keep the patient safe and to keep everybody who was
9 dealing with him safe. The secondary goal was to
10 keep the IV safe only because I didn't know how we
11 were going to be giving him medications whether we
12 would need that IV to administer medications to help
13 calm him down.

Sheila Phillips.txt

14 BY MR. BERGER:

15 Q. When the security guard took over on
16 the left arm where the IV was could you describe how
17 the security guard was holding and restraining the
18 left arm?

19 A. I don't recall.

20 Q. If I told you the security guard was
21 Keith Neilson does that help you remember who it
22 was?

23 A. Again, I don't know that I ever knew
24 the security guards by name when I worked there.

25 Q. Keith Neilson testified, I'll

♀

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1 represent this to you, that he was not even holding
2 his left arm at all but merely checked the IV to
3 make sure it was in place. Do you agree with that?

4 MR. BISHOP: Objection. She already
5 testified contrary to that but you can answer.

6 THE WITNESS: I recall asking him at
7 some point to take the patient's arm so that I could
8 let go of it.

9 BY MR. BERGER:

10 Q. Do you remember him actually grabbing

Sheila Phillips.txt

11 and holding the arm and securing the arm?

12 A. I believe the arm was secured, yes.

13 Q. So if he testified that he never
14 touched Mr. Sexton's arm would that conflict with
15 what your memory is of what he did?

16 A. Yes.

17 Q. You were interviewed by the police
18 the next morning; is that true?

19 A. Yes.

20 Q. You gave a videotaped statement; is
21 that right?

22 A. I forgot that it was videotaped but
23 yes.

24 Q. Would you consider Ativan to be a
25 sedative?

♀

86

1 A. Yes.

2 Q. Would you consider Haldol to be a
3 sedative?

4 A. Yes.

5 Q. Why do you believe that you could not
6 restrain Mr. Sexton on his back rather than on his
7 chest?

Sheila Phillips.txt

8 MR. BISHOP: Objection. Asked and
9 answered but you can answer again.

10 THE WITNESS: Because Mr. Sexton
11 turned himself to his -- to the prone position and
12 continued to combat, fight us and combat us and kick
13 with his legs and stuff and that was the way that we
14 were able to restrain him at that time.

15 BY MR. BERGER:

16 Q. How do you know you couldn't restrain
17 him on his back with the same force of three
18 security guards and you as the nurse?

19 MR. BISHOP: Objection. You can
20 answer.

21 THE WITNESS: Because he continued to
22 fight us and be combative and, again, we were trying
23 to keep him safe and keep ourselves safe and if we
24 were to let go of anything then he may have gotten
25 away, he may have kicked somebody, he may have run

♀

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1 out of the room, and our job was to keep him safe
2 and keep ourselves safe.

3 BY MR. BERGER:

4 Q. In the end do you believe you kept

Sheila Phillips.txt

5 him safe?

6 A. In the end I believe that I did
7 everything I could to keep him safe.

8 Q. Have you ever been involved with a
9 physical restraint of a patient where there were
10 three security guards and you restraining the
11 patient?

12 A. I don't believe I have been involved
13 but I have witnessed it, yes.

14 Q. Was it your understanding that Mr.
15 Sexton was kicking his legs and kicking the security
16 guards up until the minute before he was turned
17 over?

18 A. I believe -- I know that he was
19 thrashing about physically. I don't know exactly
20 what he was doing with his legs in the back. I know
21 that he was still thrashing about and trying to get
22 us off of him up until he relaxed.

23 Q. When you testified that he relaxed
24 did he then go limp?

25 A. He relaxed and we turned him over and

♀

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1 that's when we knew he was limp.

Sheila Phillips.txt

2 Q. When he relaxed did you feel that
3 relaxation or did you observe it?

4 A. I don't know that I could -- it was
5 probably a combination of both and we turned him and
6 he was limp. It was almost simultaneously.

7 Q. Were you in charge -- strike that.
8 Do the security guards have to follow
9 your instructions as the nurse?

10 A. No.

11 Q. Are they able to make decisions on
12 their own when it involves physically restraining a
13 patient?

14 A. Yes.

15 Q. Was there any one of those security
16 guards who was in charge of that group of three?

17 A. I don't know.

18 Q. Did you hear any one of them giving
19 any instructions as to what to do and how to do it?

20 A. I don't -- I don't know. I don't
21 recall that.

22 Q. Other than you instructing the
23 security guard to grab his left arm where the IV was
24 did you give any other orders to the security
25 guards?

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1 A. When I asked the security guard to do
2 that I don't know that I was giving him an order to
3 do so. I asked him to go ahead and take that left
4 arm. I think it was okay for me to let go long
5 enough for him to do that.

6 Q. Did you hear Nurse Ratti give any
7 instructions after she administered the IVs and the
8 intramuscular injection?

9 A. I don't recall any.

10 Q. Was she still in the room at that
11 time?

12 A. I don't know. I don't recall.

13 Q. Do you remember anybody else in the
14 room other than those three security guards and you
15 after she gave the Ativan and Haldol?

16 A. I don't know who was in the room
17 other than the security guards and myself.

18 Q. Did Nurse Ratti give any instructions
19 to turn him over at the time that he was turned
20 over?

21 A. Again, I don't recall anybody giving
22 instructions other than, you know, he relaxed and

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23 let's turn him over. I don't know who said that,
24 who did it. We just simultaneously agreed let's
25 turn him over, he's relaxed, let's turn him over.

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1 Q. At the time that you entered the room
2 was Pat -- strike that.

3 At the time that you turned him over
4 had Pat Zaffiri just entered the room?

5 A. Pat Zaffiri was walking into the room
6 as we were turning the patient over.

7 Q. Did you hear Pat Zaffiri give any
8 instruction at all?

9 A. I believe Pat Zaffiri said at the
10 same time that we were all realizing that he's not
11 breathing and she came around the bed and we
12 immediately started CPR.

13 Q. Did Nurse Ratti give any instructions
14 at all that you can remember or any orders at the
15 time she was in the room giving the IV and the IM
16 injections?

17 A. I don't recall.

18 Q. Who was in charge of that room? Was
19 it you or Nurse Ratti at that time?

Sheila Phillips.txt

20 A. I don't know that anybody was in
21 charge of the room. She was the charge nurse of the
22 floor so I would have deferred to her for anything.

23 Q. Was there any discussion between you
24 and Nurse Ratti about monitoring Mr. Sexton or
25 checking his pulse oximetry or his blood pressure,

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1 his heart rate, any kind of monitoring of vital
2 signs?

3 A. No, there was no discussion about
4 that.

5 Q. Was Nurse Ratti as the charge nurse
6 the person that you would take orders from under
7 those circumstances?

8 A. Yes.

9 Q. In order for a patient to be
10 physically restrained a nurse or doctor has to order
11 that to happen; is that true?

12 MR. BISHOP: Objection. You mean in
13 a situation like this, Mike, or when you talk about
14 physical restraints other than personnel?

15 MR. BERGER: Well, you know,
16 restraint is restraint as I understand it, David.

Sheila Phillips.txt

17 So let me stay with the question.

18 BY MR. BERGER:

19 Q. When a patient is physically
20 restrained does a nurse have to order that?

21 A. There has to be an order within a
22 certain period of time. Again, I don't remember
23 what Cape Regional's policies are. I believe that
24 generally speaking if need be there has to be an
25 order for any kind of restraint that's physical like

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1 a four-point leathers or soft restraint to
2 physically restrain a patient. In a crisis
3 situation I don't know that there needs to be an
4 order for that.

5 Q. At the end of your shift did you
6 drive over to the police station or did you guys
7 walk over to the police station?

8 A. We drove.

9 Q. During the course of that ride did
10 you have any discussion with Nurse Ratti as to what
11 happened?

12 A. I have to be honest with you, I don't
13 remember whether we rode together or we rode

Sheila Phillips.txt

14 separately.

15 Q. When you were at the police station
16 were you each interviewed individually?

17 A. We were interviewed individually.

18 Q. Did you have any discussions with
19 Nurse Ratti at that time about what happened to
20 Brett Sexton?

21 A. Not that I recall.

22 Q. Did you have any thoughts as to why
23 Brett Sexton died?

24 A. No. I had absolutely no idea.

25 Q. Do you know whether or not there's a

♀

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1 hospital investigation into Brett Sexton's death?

2 A. I believe there is. I don't know for
3 sure.

4 Q. Did you give any statement to the
5 hospital as to what happened?

6 A. I did not.

7 MR. BISHOP: Mike, it sounds like
8 you're wrapping up. We have about 5 minutes left on
9 the tape.

10 MR. BERGER: I am but I think it's

Sheila Phillips.txt

11 better to change the tape because I'm going to
12 review my notes.

13 MR. BISHOP: It's cheaper if you only
14 use one tape. Mike, do you want to go off now and
15 review your notes?

16 MR. BERGER: Yes.

17 MR. BISHOP: So we're going to go off
18 the tape here and she'll start up another. You're
19 going to have to pay me for it now. You're going to
20 have like a minute on it but --

21 MR. BERGER: That's all right.

22 THE VIDEOGRAPHER: 1:07, going off
23 the video record.

24 MR. BISHOP: Mike, we're back on.

25 BY MR. BERGER:

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1 Q. Just a few more questions if I may,
2 Ms. Phillips. When Mr. Sexton was turned over what
3 did you observe in his face?

4 A. That he was blue.

5 Q. Did you notice any other part of his
6 body as being blue?

7 A. I did not at that time notice

Sheila Phillips.txt

8 anything else.

9 Q. Was he breathing when you turned him
10 over?

11 A. I don't know for sure.

12 Q. Did he make any noises when you
13 turned him over?

14 A. He did not.

15 Q. Was he actually talking to you until
16 a minute before you turned him over?

17 A. He was still talking to me after she
18 gave the Haldol. I don't know for how long.

19 Q. Do you know if he was talking to you
20 for a minute after he was given the Haldol, for
21 three minutes, five minutes? Can you testify to
22 that or you don't know the answer to that question?

23 A. I don't know the exact answer. It
24 was definitely not three to five minutes. I don't
25 know exactly how long it was though.

♀

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1 Q. Okay. Do you remember the security
2 guard saying anything when you turned him over?

3 A. I do not.

4 Q. Did you help turn him over?

Sheila Phillips.txt

5 A. I did.

6 Q. Did you say anything when you turned
7 him over and saw that he was blue?

8 A. I don't know if I did or not.

9 Q. Did you know he was in trouble when
10 you -- physically in trouble when you turned him
11 over?

12 A. Yes.

13 Q. Did you call the code?

14 A. I don't know who called the code.

15 Q. Did you say anything at all when you
16 turned him over and saw that he was blue? Any words
17 come out of your mouth?

18 A. I don't know.

19 Q. Did you hear anybody say anything
20 when he was turned over and he was discovered to be
21 blue?

22 A. I don't recall.

23 Q. Were you there for the code?

24 A. Yes.

25 Q. Did you do anything in the code?

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1 A. I did not.

Sheila Phillips.txt

2 Q. Did you see Mrs. Sexton?

3 A. I don't recall if I saw her or not.

4 I know that she was there at some point in time. I

5 don't know that I saw her.

6 Q. What did you do for the rest of the

7 shift?

8 A. After we were completely finished

9 with everything with Mr. Sexton?

10 Q. Yes.

11 A. I continued to take care of my own

12 patients and finish out my shift.

13 Q. Did you write a note that night about

14 what happened?

15 A. Yes.

16 Q. It's part of the hospital record.

17 We'll mark it as Phillips 2 an exhibit.

18 (Whereupon, document was marked

19 Phillips 2 for identification.)

20 BY MR. BERGER:

21 Q. Did you prepare that note that night?

22 A. Yes, I did.

23 Q. Did you prepare the note at the end

24 of your shift?

25 A. I don't believe. I believe I did it

Sheila Phillips.txt

♀

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1 earlier than that.

2 Q. Did you handwrite any notes or did
3 you just start typing into the computer?

4 A. I typed my note into the computer.

5 Q. Did you notice any bleeding?

6 A. Mr. Sexton's nose was -- I assumed it
7 was his nose. There was blood on the sheet next to
8 him where our faces were and on the rail on the bed.

9 Q. Did you see him bleeding as you were
10 restraining him?

11 A. I did not.

12 Q. When was the first time you noticed
13 there was blood on the sheet and blood on his nose?

14 A. I didn't notice blood on his nose. I
15 noticed blood on the sheet.

16 Q. Do you know where the blood came
17 from?

18 A. I assumed it was from his nose. That
19 was the only plausible answer.

20 Q. When did you first notice the blood
21 on the sheet?

22 A. I don't remember exactly when during

Sheila Phillips.txt

23 the time that he was restrained that I noticed it
24 was -- I don't know.

25 Q. Did you notice blood on the sheet

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1 while he was being restrained?

2 A. Yes.

3 Q. Did you determine the source of the
4 bleeding on the sheet while he was being restrained?

5 A. No.

6 Q. The area of blood as described is
7 about 6 inches by 4 inches by Nurse Ratti. Is that
8 about the same that you believe?

9 A. I didn't measure it. I can't really
10 say. I don't know exactly the size of the blood.

11 Q. Was the blood next to his head?

12 A. Yes.

13 Q. Was the blood also on the rail of the
14 bed?

15 A. I believe so.

16 Q. How did the blood get on the rail of
17 the bed if he was in the middle of the bed?

18 A. I don't believe I ever said he was
19 completely in the middle of the bed.

Sheila Phillips.txt

20 Q. Was his head near the rail?

21 A. Probably at some point in time.

22 Q. Was there blood also going down the
23 side of the sheet on the bed?

24 A. I don't recall that.

25 Q. If the blood was on the rail the rail

99

1 is about 5 inches above the bed. How did the blood
2 get on the rail?

3 MR. BISHOP: Objection. You can
4 answer.

5 THE WITNESS: I don't know that the
6 blood was on the top of the rail. The rail goes 5
7 inches above the bed to below the mattress.

8 BY MR. BERGER:

9 Q. Uh-huh. Do you remember where --

10 A. The blood could have been anywhere on
11 the rail.

12 Q. I didn't mean to interrupt you. Do
13 you remember where on the rail the blood was
14 located?

15 A. I do not.

16 Q. Do you know how much blood was on the

Sheila Phillips.txt

17 rail?

18 A. I do not.

19 Q. Was there any blood on the floor?

20 A. There was blood on the floor. I did

21 not see that during the restraint time. I only saw

22 that after.

23 Q. How much blood was on the floor?

24 A. Again, I don't know. I didn't

25 measure. A small puddle.

♀
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100

1 Q. When you saw the blood on the sheets
2 when he was being restrained were you concerned
3 about where he was bleeding from?

4 A. Yes.

5 Q. Did you do anything about that? Did
6 you stop restraining him? Did you talk to him about
7 it? Did you report it to anybody?

8 A. I looked at the patient to see if I
9 could determine where the blood came from. I didn't
10 see him actively bleeding anywhere and I didn't
11 report it to anybody at the time.

12 Q. When you said you looked at the
13 patient how did you look at the patient in response

Sheila Phillips.txt

14 to the blood?

15 A. I looked at his face and I looked at
16 what I could see of his hand that was on that side
17 and from my vantage point while holding him or
18 leaning into his right shoulder I looked at what I
19 could see. I did not see anywhere where he was
20 bleeding at that time.

21 Q. Did you look at one side of his face
22 or both sides of his face?

23 A. He was turning his head from right to
24 left. I could see his left cheek and kind of a
25 profile view of his left side when he turned that

101

1 way. I could see his whole face when he turned to
2 the right.

3 Q. Could you see his right ear and right
4 cheek when he turned his head?

5 A. Yes.

6 Q. Could you see his left ear and left
7 cheek when he turned his cheek -- when he turned his
8 head?

9 A. Yes, in profile.

10 Q. Was there any part of his face that

Sheila Phillips.txt

11 you could not see while he was being restrained?

12 A. I would think that the left nares and
13 in that -- that line I wouldn't -- probably wasn't
14 able to see.

15 Q. Did you ever make a determination at
16 all where the blood was coming from?

17 A. I did not.

18 Q. I'm looking at a photograph from the
19 autopsy and it appears that there is some bleeding
20 in the back of his head. Can you explain that?

21 A. I cannot.

22 Q. I'm going to show this to you.

23 MR. BISHOP: Objection. Mike, before
24 you get there, I'm going to object. I'm not going
25 to let her look at any autopsy photos. She finds,

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1 obviously, this case very distressing. If you feel
2 that necessary then I'm going to require you to file
3 a motion.

4 MR. BERGER: Let me ask you this.

5 The picture that I'm about to show doesn't show
6 anything but his hair and his neck and there's some
7 of his back but it's not one of those photographs

Sheila Phillips.txt

8 from the autopsy that would be intrusive.

9 MR. BISHOP: Mike, my position is
10 that she had nothing to do with the autopsy. If you
11 want to ask her about the findings and whether
12 that's consistent with something she observed that's
13 fine, but we're very sensitive to this issue and, as
14 I said, if you feel that necessary I'm going to ask
15 that you file a motion.

16 MR. BERGER: Fair enough.

17 BY MR. BERGER:

18 Q. I'm just representing to you that in
19 the photograph that I'm looking it appears there's
20 bleeding in the back of his head. Do you have any
21 explanation for that?

22 A. I do not.

23 Q. Can bleeding occur from the eyes?

24 A. Bleeding can occur from anywhere.

25 Q. Did you examine his eyes in any way?

103

1 A. I could see his eyes. I did not see
2 any blood.

3 Q. Did you see any blood from his nose?

4 A. I did not.

Sheila Phillips.txt

5 Q. Were you concerned that you just did
6 not know the source of the bleeding when you saw it
7 while he was being restrained?

8 A. I was concerned but not overly so. I
9 didn't see any active bleeding anywhere.

10 Q. Well, the blood on the bed was red;
11 is that right?

12 A. Yes.

13 Q. And you knew the blood was coming
14 from him; is that true?

15 A. I can honestly say that was an
16 assumption I made. I can't say that I knew that it
17 came from him.

18 Q. You weren't bleeding, were you?

19 A. No.

20 Q. So just getting back to this thought.
21 If you saw red blood on the bed and it was a patch
22 of about 6 inches were you the least bit concerned
23 about the source of that bleeding as he was being
24 restrained?

25 MR. BISHOP: Objection; asked and

♀

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1 answered. You can answer again.

Sheila Phillips.txt

2 THE WITNESS: Yes, I was concerned
3 about it, not overly so. From what I could assess I
4 did not see any active bleeding at that time.

5 BY MR. BERGER:

6 Q. At some point during the restraint
7 process there was active bleeding; is that true?

8 MR. BISHOP: Objection. We haven't
9 established that, Mike. You can answer.

10 THE WITNESS: I don't know when the
11 bleeding occurred. I did not see him bleeding.
12 There was blood on the sheet. I don't know where it
13 came from.

14 BY MR. BERGER:

15 Q. At some point while he was being
16 restrained there was no blood on the sheet; is that
17 accurate?

18 A. I honestly don't know that. I don't
19 remember seeing any blood before.

20 Q. So when you came in and you went to
21 the left side of the bed, his left, right --
22 correct?

23 A. No. I stated before that if you're
24 standing at the foot of the bed I was on the left --
25 I'm sorry. Ask your question again.

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1 Q. Yes. When you first came in you were
2 on his left side of the bed?

3 A. Yes.

4 Q. And you saw the area around his head
5 and face when he was on his back and then when he
6 flipped over for a period of time; is that true?

7 A. Yes.

8 Q. And then you didn't notice any blood
9 on the bed at the time he was on his back and at the
10 time that he flipped over; is that true?

11 A. That's true.

12 Q. Do you know if you saw the blood
13 before or after the Ativan and Haldol were given?

14 A. I don't know when I saw it. I don't
15 know where in that I noticed it.

16 Q. Could you agree that the blood
17 occurred while he was being physically restrained by
18 you and the three security guards?

19 MR. BISHOP: Objection. You can
20 answer.

21 THE WITNESS: I don't know that.

22 BY MR. BERGER:

Sheila Phillips.txt

23 Q. Did you have any discussion with Dr.
24 Steinberg when he was doing the code?

25 A. Only he was trying to find labs and I

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1 pulled a computer in and couldn't find them.

2 Q. What kind of labs was he looking for?

3 A. Whatever lab work the patient had for
4 the day.

5 Q. Did you hear Dr. Steinberg give any
6 indication as to what he thought happened?

7 A. I did not.

8 Q. Was there any discussion that you
9 participated in where there was a discussion about
10 what happened to Mr. Sexton and why he died?

11 A. No, other than that we were shocked
12 and what happened.

13 Q. Would it be your testimony that from
14 the -- about 12:15 when Nurse Ratti did the
15 telephone order for the Ativan and Haldol until the
16 minute before Mr. Sexton was turned over that he was
17 the same combative, assaultive patient during that
18 entire period of time?

19 A. Yes.

Sheila Phillips.txt

20 Q. Because he was combative and
21 assaultive from 12:15 until you turned him over were
22 you using pressure against his right shoulder with
23 your body?

24 A. Yes.

25 Q. Just give me a minute. Let me look

107

1 at my notes.

2 Do you remember anybody from
3 telemetry coming into the room about the same time
4 that Pat Zaffiri came into the room?

5 A. Again, I don't know who all came into
6 the room.

7 Q. Do you remember hearing any
8 discussion about there was evidence that his heart
9 was no longer beating or that the telemetry must
10 have come off of his chest?

11 A. I do not.

12 Q. Was there any report that you were
13 aware of during the time that Mr. Sexton was being
14 restrained that there was any problem or difficulty
15 with the telemetry?

16 A. I wasn't aware of any.

Sheila Phillips.txt

17 Q. As far as you understood it, was the
18 telemetry intact the entire time he was being
19 restrained?

20 A. I don't know that.

21 Q. The IV remained intact the entire
22 time that he was being restrained; is that true?

23 A. I believe so.

24 Q. Was Mr. Sexton grunting and talking
25 after he grunted and groaned or was there a period

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1 of time when there were no words spoken by Mr.
2 Sexton and you only heard grunting and groaning?

3 A. No. He was talking and grunting and
4 groaning during the whole time.

5 Q. Had you ever seen patients who have
6 turned blue where the blue coloring starts at the
7 nipple line and goes up --

8 A. No.

9 Q. -- to the head?

10 A. No.

11 Q. Do you know whether or not -- I'm
12 sorry. I didn't mean to interrupt you.

13 Do you know whether or not there was

Sheila Phillips.txt

14 any blueness from Mr. Sexton's nipple line up
15 through his neck into his face?

16 A. I didn't see that.

17 Q. Was Nurse Ratti in the room observing
18 Mr. Sexton at the same time you were physically
19 restraining him and observing him?

20 A. Nurse Ratti was in and out getting
21 orders and getting medications. I don't know other
22 than those things when else she was in the room or
23 not.

24 Q. Was that night, the night of July 15,
25 2013, the only involvement you had in the care and

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1 treatment of Brett Sexton?

2 A. Yes.

3 Q. After you gave your statement to the
4 police did you give any other statements at all in
5 this case?

6 A. I did not.

7 Q. After you gave the statement to the
8 police did you ever have any discussions with any of
9 the nursing staff or physician staff about Brett
10 Sexton when you went back to the hospital?

Sheila Phillips.txt

11 A. No.

12 Q. Did you continue to care for your
13 other patients after Brett Sexton was pronounced at
14 the end of the code?

15 A. Yes.

16 MR. BERGER: I have no further
17 questions. Thank you.

18 MS. McCANN: No questions.

19 MR. HOCKIN: No questions.

20 MS. MILANO: No.

21 MR. BISHOP: We're done. Thanks
22 everyone.

23 (Witness excused.)

24 (Deposition concluded at
25 approximately 1:36 p.m.)

110

1 CERTIFICATE

2

3

4 I HEREBY CERTIFY that the witness was
5 duly sworn by me and that the deposition is a true
6 record of the testimony given by the witness.

7

Sheila Phillips.txt

8

9

10 Samantha A. Oakley
11 Certified Court Reporter
12 Dated: December 14, 2016

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16 (The foregoing certification of this
17 transcript does not apply to any reproduction of the
18 same by any means, unless under the direct control
19 and/or supervision of the certifying reporter.)

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CURRICULUM VITAE

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1997	MD, PhD cum laude cum laude eruditionis causa	Medicine, Biological Chemistry Michael A. Marletta, advisor	University of Michigan

Postdoctoral Training

07/97-06/99	Resident	Anatomic Pathology	Brigham and Women's Hospital
07/99-09/99	Chief Resident	Anatomic Pathology	Brigham and Women's Hospital
07/99-06/00	Clinical Fellow	Cardiovascular Pathology	Brigham and Women's Hospital
07/00-06/03	Research Fellow	Vascular Biology Tucker Collins, advisor	Brigham and Women's Hospital and Children's Hospital, Boston

Faculty Academic Appointments

7/01-10/03	Instructor	Pathology	Harvard Medical School
10/03-9/11	Assistant Professor	Pathology	Harvard Medical School
10/11-Present	Associate Professor	Pathology	Harvard Medical School

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Appointments at Hospitals/Affiliated Institutions

07/00-09/03	Associate Pathologist	Brigham and Women's Hospital
11/01-09/03	Consultant Staff	Children's Hospital, Boston, MA
10/02-09/03	Provisional Medical Staff	Faulkner Hospital, Boston, MA
10/03-2/13	Assistant Pathologist	Massachusetts General Hospital
2/13-Present	Associate Pathologist	Massachusetts General Hospital

Major Administrative Leadership Positions

2003-Present	Head of Cardiovascular Pathology Service	Massachusetts General Hospital
2010-Present	Director of the Autopsy Service	Massachusetts General Hospital

Committee Service

2004-2006	Molecular Pathology Steering Committee	Massachusetts General Hospital
2005-2007	Director for Visiting Professorships, Pathology Service	Massachusetts General Hospital
2007-Present	Research Council	Massachusetts General Hospital

Professional Societies

2000-Present	Society for Cardiovascular Pathology
2007-2016	Member, Education Committee
2008-Present	Chair/Member, Standards and Definitions Committee
2009-2012	Endomyocardial Biopsy International Working Group
2010-2013	Councilor, Executive Committee
2013-2016	Chair, Program Committee
2017-	Vice President, President Elect
2002-Present	American Society for Investigative Pathology
2006-2010	Committee for Career development, Women and Minorities
2013-Present	Member, Program Committee
2002-Present	American Society for Biochemistry and Molecular Biology
2002-Present	North American Vascular Biology Organization
2002-Present	United States and Canadian Academy of Pathology
2004-Present	American Heart Association
2009-Present	College of American Pathologists

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Grant Review Activities

2003	Pathology A Study Section 2003	NIH Ad hoc Member
2009	NHLBI Special Emphasis Panel 2009	NIH Ad hoc Member

Editorial Activities

Ad Hoc Reviewer

ACS Chemical Biology	Human Pathology Case Reports
American Journal of Pathology	International Journal of Legal Medicine
American Journal of the Medical Sciences	International Journal of Molecular Sciences
American Journal of Transplantation	International Journal of Rheumatology
Annals of Rheumatic Diseases	Journal of Biological Chemistry
Antioxidants & Redox Signaling	Journal of Rheumatology
APMIS	Journal of the American Heart Association
Arthritis Care & Research	Journal of Trace Elements in Medicine and Biology
Arthritis Research & Therapy	Lupus
Biochimica et Biophysica Acta	Modern Pathology
BMJ Case Reports	Molecular and Cellular Biochemistry
Cardiovascular Pathology	Molecular Pharmaceutics
Circulation	Nature Structure and Molecular Biology
Cleveland Clinic Journal of Medicine	Neuropathology and Applied Neurobiology
Current Medicinal Chemistry	New England Journal of Medicine
Cytometry	Pathology Research and Practice
European J. of Cardio-Thoracic Surgery	Physiological Reviews
Free Radical Research	Proceedings of the National Academy of Sciences, USA
Histology and Histopathology	Proteomics
Histopathology	Redox Report
Human Pathology	Trace Elements in Medicine and Biology

Other Editorial Roles

2010-2014	Member, Editorial Board	Cardiovascular Pathology
2015-Present	Associate Editor	Cardiovascular Pathology

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Honors and Prizes

1987	Phi Lambda Upsilon	Wabash College	Scholarship
1988	Phi Beta Kappa	Wabash College	Scholarship
1990	Dean's Award	University of Michigan, School of Medicine	Scholarship
1991	Dean's Award	University of Michigan, School of Medicine	Scholarship
1991	McGraw-Hill Award	University of Michigan, School of Medicine	Scholarship
1992	Alpha Omega Alpha	University of Michigan, School of Medicine	Scholarship
1992	Halvor-Christensen Award	University of Michigan, Department of Biological Chemistry	Scholarship
1995	Spencer Foundation Award	University of Michigan, Medical Scientist Training Program	Research
1996	Lee Murphy Award	University of Michigan, Department of Biological Chemistry	Publications
2004	Molecular Pathology Resident Mentoring Award	Massachusetts General Hospital, Pathology Service	Teaching

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Report of Funded and Unfunded Projects

Funding Information

Past Funding

- 2003-2007 Hydrogen Peroxide Sensing by Human Endothelial Cells
NIH / NHLBI R01 HL074324
PI (\$800,000)
This project identified the CK1 α LS / hnRNP-C pathway as a novel nuclear signaling pathway activated by low mitogenic levels of hydrogen peroxide in human endothelial cells.
- 2005-2008 Thoracic Allograft Tolerance in Non-Human Primates
NIH / NIAID U19 AI066705
Co-Investigator
The major goal of this project is to determine the mechanism of solid organ allograft tolerance in a non-human primate model of human allograft disease.
- 2009-2010 Development and Validation of an in vitro Human Artery Model of Atherosclerosis
Alternatives Research & Development Foundation
PI (\$40,000)
The major goal of this project is to develop and evaluate an intro human artery model of atherosclerosis.
- 2008-2012 Chemical analysis of coronary atherosclerosis in patients
NIH / NHLBI R01 HL093717
Co-Investigator
The objective of this proposal is to develop and validate a device for measuring the chemical and molecular composition of coronary atherosclerotic plaques in living human patients.
- 2004-2014 Novel Therapies of Chronic Allograft Dysfunction
NIH / NIAID U01 AI063623
Co-Investigator
The major goal of this project is to investigate novel therapies of chronic allograft dysfunction.
- 2011-2016 Transnasal Probe Diagnosing Eosinophilic Esophagitis
NIH/NIDDK R01 DK091923
Co-Investigator
The major goal of this proect is to develop a novel imaging method for montioring esophageal eosinophils.

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Current Funding

2011-2017 Natural History of Vulnerable Coronary Plaques
NIH / NHLBI R01 HL076398
Co-Investigator
The objective of this proposal is to develop and validate new technology for
imaging coronary atherosclerotic plaques in living human patients.

Current Unfunded Projects

2005-Present	Assessment of the etiology, prognosis and classification of non-infectious aortitis.
2005-Present	Subtyping amyloid deposits in clinical pathologic specimens.
2006-Present	Evaluation of immunohistochemistry as an aid in the assessment of temporal artery biopsies for giant cell arteritis.
2007-Present	Elucidate the role of the CK1aLS / hnRNP-C signaling pathway in vascular disease.
2010-Present	Development and assessment of in vitro models of atherosclerosis.

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Report of Local Teaching and Training

Teaching Students in Courses

1998-2003	Human Pathology	HMS
	Medical students	
1999-2003	Pathologic Basis of Disease	MCP
	Physician assistant students	
2000-2001	Pathology	HMS
	Medical students	
2000-2002	Cardiovascular Pathophysiology	HMS
	Medical students	
2001-2003	Human Systems	HMS
	Medical students	
2004-2013	Human Systems	HMS
	Medical students	5 hours / yr
2005-2013	Principle and Practice of Human Pathology	MIT
	Medical and graduate students	1 hour / yr
2008-2013	Principle Clinical Experience Conferences	MGH
	Medical students	2 hours / yr
2015-	Introduction to Autopsy	1 hour / yr
	Physician Assistant Students	MGH Institute

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

2000-2003	Autopsy Pathology Conferences	BWH
	Pathology residents and fellows	10-15 hours / year
2004-Present	Cardiovascular Pathology Lectures	MGH
	Medical Students, Residents and Fellows	5-10 hours / year
2004-Present	Pathology Slide Conferences	MGH
	Medical Students, Residents and Fellows	3-6 hours / year
2004-Present	Autopsy Pathology Conferences	MGH
	Medical Students, Residents and Fellows	5-25 hours / year

Clinical Supervisory and Training Responsibilities

2000-2003	Attending on the Autopsy Service	8 weeks / year
	BWH	
2000-2003	Attending on the Cardiovascular Pathology Service	10 weeks / year
	BWH	
2004-2005	Attending on the Pulmonary Pathology Service	10 weeks / year
	MGH	
2004-Present	Attending on the Cardiovascular Pathology Service	10-40 weeks / year
	MGH	
2004-Present	Attending on the Autopsy Service	10-15 weeks / year
	MGH	

Laboratory and Other Research Supervisory and Training Responsibilities

2003-Present	Supervision and Training of laboratory personnel including technicians, post-doctoral fellows, and research scientist.	Daily supervision and training.
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Formally Supervised Trainees and Faculty

2003-2005	Taj Kattapuram, MD / Radiology Resident, MGH Published two manuscripts.
2004-2005	Paul Talusan, MD / Orthopedic Surgeon, University of Michigan Completed master's research thesis, which was awarded honors, and published two manuscripts.
2004-2006	Suping Yang, MD, PhD / Scientist III, Tufts University Published three manuscripts.
2004-2007	Shahinaz Bedri, MBBS / Anatomic Pathologist, Novartis Published three manuscripts.
2005-2007	Stephanie Cizek, MD / OB-Gyn Resident, San Francisco Medical Center Published two manuscripts.
2007-Present	Mikhail Panchenko, PhD / Research Scientist, MGH Published multiple manuscripts.
2009-2011	He Wang, MD, PhD, Pathologist, Temple University Published two manuscripts.
2010-2012	Jillian M. Stone / Undergraduate Student, Case Western Reserve University Complete two summer research rotations, published 1 manuscript.
2013-2015	Carmen McCormack, BA / Undergraduate, Harvard Extension School Prepared Manuscript, Poster Presented at USCAP.
2014	Yukako Shintani, MD / Pathologist, University of Tokyo Hospital
2014-2015	George Eng, MD, PhD / Pathology Resident, MGH. Published one manuscript, won SCVP Young Investigator Award

Formal Teaching of Peers

No presentations below were sponsored by outside entities.

2004	Cardiac and Systemic Amyloidosis Current Concepts in Surgical Pathology	Lecture Boston, MA
2006-2007	Cardiovascular Pathology Internal Medicine: Comprehensive Review and Update	Case Presentations Cambridge, MA
2007	Understanding Atherosclerotic Lesion Formation High Risk Plaques: Detection and Management	Lecture Cambridge, MA
2007	Cardiovascular Pathology Applying Anatomic and Clinical Pathology to Reach a Diagnosis	Case Presentations Cambridge, MA
2015	Aortitis, Perspectives from Pathology Advances in Rheumatology	Lecture Boston, MA
2016	Pathology of Temporal Arteritis Advances in Rheumatology	Lecture Boston, MA

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Local Invited Presentations:

No presentations below were sponsored by outside entities.

2002	Giant cell arteritis and scalp necrosis / Clinicopathologic Conference Department of Medicine, BWH
2003	Hydrogen Peroxide Signaling in Human Endothelial Cells / Grand Rounds Pathology Service, MGH
2004-Present	Pathologic Findings / NEJM Case Records of the MGH Series MGH
2004-Present	Cardiovascular Pathology / Cardiac Surgery M&M Conferences Cardiac Surgery Service, MGH
2004	Hydrogen Peroxide Signaling in Human Endothelial Cells / Seminar Series MGH Cardiovascular Research Center
2004	Hydrogen Peroxide Signaling in Human Endothelial Cells / MPR Conference Pathology Service, MGH
2005	Site Specific Susceptibility to Atherosclerosis / Lecture Series Wellman Center for Photomedicine, MGH
2006	Signaling with Hydrogen Peroxide in Endothelial Cells / Simches Symposium MGH Executive Committee on Research
2007-Present	Cardiovascular Pathology / Cardiology Cath Conference Series Cardiology Division, MGH
2007-Present	Aortic Pathology / Thoracic Aortic Center Rounds MGH Thoracic Aortic Center
2007-Present	Pathology of Collagen Vascular Diseases / Rheumatology Staff Conferences Rheumatology Division, MGH
2008	Protein Kinase CK1 α LS and Vascular Cell Proliferation / Seminar Series Vascular Research Division, BWH
2008	Protein Kinase CK1 α LS and Vascular Cell Proliferation / Science Talk Series Center for Systems Biology, MGH
2008-Present	Pathologic Findings / Cardiac Transplant Weekly Patient Conference Cardiology Division, MGH
2009	Chloroquine Cardiac Toxicity / Intercity Rheumatology Conference Rheumatology Division, MGH
2011	IgG4-RD and the classification of aortitis and retroperitoneal fibrosis International Symposium on IgG4-Related Disease, MGH.
2012	Vascular Pathology of Stroke, Boston Stroke Society, MGH
2012	Liver Necrosis in Systemic Lupus Erythematosus, Rheumatology Grand Rounds, BWH
2014	Introduction to the Autopsy Service, Palliative Care Grand Rounds, MGH
2015	The MGH Autopsy Service, Trauma and Critical Care Didactic Conference and Journal Club, MGH
2015	The MGH Autopsy Service, Medicine Residents' Noon Conference, Newton Wellesley Hospital
2015	Molecular Investigation into a Familial Cardiomyopathy: Perspectives from Cardiology, Pathology, and the Family, SCVP Saturday Evening Session, MGH
2016	Inflammation in Human Atherosclerosis, Pathology Grand Rounds, MGH
2016	IgG4-Related Disease: A New Form of Vasculitis / Seminar Series Vascular Research Division, BWH

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Report of Regional, National and International Invited Teaching and Presentations

Regional Presentations:

No presentations below were sponsored by outside entities.

- 2003 Hydrogen peroxide signaling in human endothelial cells / Invited Lecture
Dartmouth-Hitchcock Medical Center, Hanover, NH
- 2009 Rheumatoid Lung Disease / Presentation
Intercity Rheumatology Conference, Lahey Clinic, Burlington, MA
- 2012 Mechanisms of Human Vascular Wall Activation / Lecture
Tufts University, Cummings School of Veterinary Medicine, North Grafton, MA
- 2015 Adventitial macrophages and vascular activation / Lecture
Experimental Biology / American Society for Investigative Pathology, Boston, MA

National Presentations:

Any presentations below that were sponsored by outside entities are so indicated.

- 2003 Hydrogen peroxide signaling in human endothelial cells / Invited Lecture
Cleveland Clinic, Cleveland, OH
- 2005 Hydrogen peroxide signaling in human endothelial cells / Visiting Scientist
University of Pennsylvania Medical Center, Philadelphia, PA
- 2005 Proteomic profiling of human vascular intimal proteoglycans / Lecture (abstract)
United States and Canadian Academy of Pathology, Annual Meeting, San Antonio, TX
- 2005 Regulation of hnRNP-C function by physiologic levels of hydrogen peroxide and
protein kinase CK1 α / Lecture (abstract)
American Society for Biochemistry and Molecular Biology, San Diego, CA
- 2005 Variations in intimal proteoglycans and site-specific susceptibility to atherosclerosis /
Lecture (abstract)
Experimental Biology / American Society for Investigative Pathology, San Diego, CA
- 2006 Cardiac Amyloidosis / Invited Lecture
United States and Canadian Academy of Pathology, Annual Meeting, Atlanta, GA
- 2007 Regulation of the nuclear protein kinase CK1 α LS by mitogenic levels of hydrogen
peroxide / Lecture (abstract)
Experimental Biology / American Society for Investigative Pathology, Washington DC
- 2009 Protein kinase CK1 α LS mediates hydrogen peroxide stimulated vascular cell
proliferation and intimal hyperplasia / Lecture (abstract)
Experimental Biology / American Society for Investigative Pathology, New Orleans,
LA
- 2009 New Insights into Aortic Diseases / Invited Lecture
University of Michigan Medical Center, Ann Arbor, MI
- 2010 IgG4 related systemic disease and thoracic aortitis / Lecture (abstract)
United States and Canadian Academy of Pathology, Annual Meeting, Washington, DC
- 2013 Pitfalls in the diagnosis and classification of aortitis / Invited Lecture
United States and Canadian Academy of Pathology, Annual Meeting, Baltimore, MD
- 2014 IgG4-related aortitis and periaortitis / Invited Lecture
International Symposium IgG4-RD and Associated Conditions, Honolulu, HI

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- 2014 Novel prognostic tissue markers in congestive heart failure / Invited Lecture
United States and Canadian Academy of Pathology, Annual Meeting, San Diego CA
- 2015 Panel Discussion on the Diagnosis and Management of ATTR Cardiac Amyloidosis
National Harbor, MD, *Sponsored by Alnylam Pharmaceuticals.*
- 2016 Cardiac and Non-Cardiac Biopsy to Diagnosis Amyloidosis / Invited Lecture
Heart Failure Society of America, Annual Meeting, Orlando FL
*Supported by an educational grant from the Amyloidosis Research Consortium (ARC):
Pfizer, Protehna, Alnylam, Ionis*

International Presentations:

No presentations below were sponsored by outside entities.

- 2012 Coronary Artery Disease and Myocardial Ischemia / Invited Lecture
United States and Canadian Academy of Pathology, Annual Meeting, Vancouver,
Canada.
- 2013 Proteomics of Atherosclerosis / Invited Lecture
Symposium on Systems Biology in Atherosclerosis, McGill University, Montreal,
Canada.
- 2015 Cardiomyopathies and the Role of Endomyocardial Biopsy / Invited Lecture
XXVIII World Congress of the World Association of Societies of Pathology and
Laboratory Medicine, Cancun, Mexico.
- 2016 Inflammation in Human Atherosclerosis, Invited Professor
University of Manitoba, Winnipeg, Canada.
- 2016 IgG4-Related Vasculitis / Invited Lecture
International Academy of Pathology/European Society of Pathology Annual Meeting
Cologne, Germany

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Report of Clinical Activities and Innovations

Current Licensure and Certification:

1999 Massachusetts Medical License
2000 American Board of Pathology, Anatomic Pathology

Practice Activities:

2000-2003	Cardiovascular Pathology	Department of Pathology, BWH	8 weeks/year
2000-2003	Autopsy Pathology	Department of Pathology, BWH	8 weeks/year
2004-2005	Pulmonary Pathology	Pathology Service, MGH	10 weeks/year
2004-Present	Autopsy Pathology	Pathology Service, MGH	10-15 weeks/year
2004-Present	Cardiovascular Pathology	Pathology Service, MGH	10-40 weeks/year

Clinical Innovations:

Subtyping Amyloid Deposits in Cardiac Biopsies by Immunofluorescence

A novel immunofluorescence approach to subtype amyloid deposits in cardiac biopsies was developed. This procedure was implemented on the Cardiovascular Pathology Service at MGH and is now routinely used to subtype amyloid deposits in pathologic specimens. This innovation was presented at the United States and Canadian Academy of Pathology Annual Meeting in 2006, and was published in *Cardiovascular Pathology* in 2009.

Identification of IgG4 related aortitis as a newly recognized cause of thoracic aortitis

An immunohistochemical technique was developed to identify the presence of IgG4-related systemic disease in cases of thoracic aortitis. This development allowed us to recognize for the first time that IgG4-related systemic disease is a not-uncommon cause of thoracic aortitis comparable to giant cell arteritis, rheumatoid arthritis and Takayasu disease. This discovery was published in a series of papers in *The Lancet*, *Arthritis & Rheumatism*, and *Arthritis Care & Research* in 2009-2010 and was presented at the United States and Canadian Academy of Pathology Annual Meeting in 2010.

Identification of high rates of distal aortic events in patients with ascending giant cell aortitis without clinical features of systemic giant cell arteritis

When giant cell aortitis is identified in resected ascending aortas, the clinical implications were often unclear, with many patients being considered to have an isolated self-limited disease. In a long-term follow-up study it was established that in fact, even in the absence of clinical features of systemic giant cell arteritis, these patients are at high risk of subsequent distal aortic events compared with a control group. This observation is changing the way these patients are discussed and followed in the clinical setting. This study was presented at the United States and Canadian Academy of Pathology Annual Meeting in 2010.

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Report of Technological and Other Scientific Innovations

Lumican proteoglycan
in the diagnosis and
treatment of
atherosclerosis

US Patent Application 11/918,621 filed October 15, 2007

A novel proteomic mass spectrometry approach was developed and used to screen intimal proteoglycans in atherosclerosis-prone and atherosclerosis-resistant human arteries. This novel technique identified lumican proteoglycan as a specific component of pre-atherosclerotic intimal hyperplasia in atherosclerosis-prone arteries suggesting this proteoglycan may be useful as a target to diagnose and treat atherosclerosis.

Report of Scholarship

Peer-Reviewed Publications

Research Investigations

1. Gan, Z, Lewis SD, **Stone JR**, Shafer JA. Reconstitution of catalytically competent human ζ -thrombin by combination of ζ -thrombin residues A1-36 and B1-148 and an *Escherichia coli* expressed polypeptide corresponding to ζ -thrombin residues B149-259. *Biochemistry* 1991;30:11694-11699.
2. **Stone JR**, Marletta MA. Soluble guanylate cyclase from bovine lung: Activation with nitric oxide and carbon monoxide and spectral characterization of the ferrous and ferric states. *Biochemistry* 1994;33:5636-5640.
3. **Stone JR**, Sands RH, Dunham, WR, Marletta MA. Electron paramagnetic resonance spectral evidence for the formation of a pentacoordinate nitrosyl-heme complex on soluble guanylate cyclase. *Biochem. Biophys. Res. Comm.*, 1995;207:572-7.
4. **Stone JR**, Marletta MA. Heme stoichiometry of heterodimeric soluble guanylate cyclase. *Biochemistry* 1995;34:14668-14674.
5. **Stone JR**, Marletta MA. The ferrous heme of soluble guanylate cyclase: Formation of hexacoordinate complexes with carbon monoxide and nitrosomethane. *Biochemistry* 1995;34:16397-16403.
6. **Stone JR**, Marletta MA. Spectral and kinetic studies on the activation of soluble guanylate cyclase by nitric oxide. *Biochemistry* 1996;35:1093-1099.
7. Deinum G, **Stone JR**, Babcock GT, Marletta MA. Binding of nitric oxide and carbon monoxide to soluble guanylate cyclase as observed with resonance Raman spectroscopy. *Biochemistry* 1996;35:1540-1547.
8. **Stone JR**, Sands RH, Dunham WR, Marletta MA. Spectral and ligand-binding properties of an unusual hemoprotein, the ferric form of soluble guanylate cyclase. *Biochemistry* 1996;35:3258-3262.
9. **Stone JR**, Marletta, MA. Synergistic activation of soluble guanylate cyclase by YC-1 and carbon monoxide: Implications for the role of cleavage of the iron-histidine bond during activation by nitric oxide. *Chem. Biol.* 1998;5:255-261.
10. Womer KL, **Stone JR**, Murphy B, Chandraker A, Sayegh MH. Indirect allorecognition of donor class I and II major histocompatibility complex peptides promotes the development of transplant vasculopathy. *J. Am. Soc. Nephrol.* 2001;12:2500-2506.
11. Finn PW, **Stone JR**, Boothby MR, Perkins DL. Inhibition of NF- κ B dependent T cell activation abrogates acute allograft rejection. *J. Immunol.* 2001;167:5994-6001.

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12. Rabkin E, Aikawa M, **Stone JR**, Fukumoto Y, Libby P, Schoen FJ. Activated interstitial myofibroblasts express catabolic enzymes and mediate matrix remodeling in myxomatous heart valves. *Circulation* 2001;104:2525-2532.
13. He H, **Stone JR**, Perkins DL. Analysis of robust innate immune response after transplantation in the absence of adaptive immunity. *Transplantation* 2002;73:853-861.
14. **Stone JR**, Maki JL, Blacklow SC, Collins T. The SCAN domain of Znf174 is a dimer. *J. Biol. Chem.* 2002;277:5448-5452.
15. Mckee CM, Defina R, He H, Haley KJ, **Stone JR**, Perkins DL. Prolonged allograft survival in TNF receptor 1-deficient recipients is due to immunoregulatory effects, not to inhibition of direct antigraft cytotoxicity. *J. Immunol.* 2002;168:483-489.
16. Cloud JE, Rogers C, Reza TL, Ziebold U, **Stone JR**, Picard MH, Caron AM, Bronson RT, Lees JA. Mutant mouse models reveal the relative roles of E2F1 and E2F3 in vivo. *Mol. Cell. Biol.* 2002;22:2663-2672.
17. **Stone JR**, Collins T. Rapid phosphorylation of heterogeneous nuclear ribonucleoprotein C1/C2 in response to physiologic levels of hydrogen peroxide in human endothelial cells. *J. Biol. Chem.* 2002;277:15621-15628.
18. Finn PW, He H, Ma C, Mueller T, **Stone JR**, Liou HC, Boothby MR, Perkins DL. Molecular profiling of the role of the NF- κ B family of transcription factors during alloimmunity. *J. Leukocyte Biol.* 2002;72:1054-1062.
19. He H, **Stone JR**, Perkins DL. Analysis of differential immune responses induced by innate and adaptive immunity following transplantation. *Immunol.* 2003;109:185-196.
20. Sander TL, Stringer KF, Maki JL, Szauter P, **Stone JR**, Collins T. The SCAN domain defines a large family of zinc finger transcription factors. *Gene* 2003;310:29-38.
21. **Stone JR**, Maki JL, Collins T. Basal and hydrogen peroxide stimulated sites of phosphorylation in heterogeneous nuclear ribonucleoprotein C1/C2. *Biochemistry* 2003;42:1301-1308.
22. Oestreicher EM, Martinez-Vasquez D, **Stone JR**, Jonasson L, Roubanthisuk W, Mukasa K, Adler GK. Aldosterone and not plasminogen activator inhibitor-1 is a critical mediator of early angiotensin II/ N^G -nitro-L-arginine methyl ester-induced myocardial injury. *Circulation* 2003;108:2517-2523.
23. **Stone JR**. Intimal hyperplasia in the distal ulnar artery: Influence of gender and implications for the hypothenar hammer syndrome. *Cardiovasc. Pathol.* 2004;13:20-25.
24. Ivanov D, **Stone JR**, Maki JL, Collins T, Wagner G. Mammalian SCAN domain dimer is a domain-swapped homologue of the HIV capsid C-terminal domain. *Molecular Cell* 2005; 17:137-143.

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25. Kattapuram T, Yang S, Maki JL, **Stone JR**. Protein kinase CK1 α regulates mRNA binding by hnRNP-C in response to physiologic levels of hydrogen peroxide. *J. Biol. Chem.* 2005; 280:15340-15347.
26. Liu F-F, **Stone JR**, Schuldt AJT, Okoshi K, Okoshi MP, Nakayama M, Ho KKL, Manning WJ, Marchionni MA, Lorell BH, Morgan JP, Yan X. Heterozygous knock out of the neuregulin-1 gene in mice exacerbates doxorubicin-induced heart failure. *Am. J. Physiol. Heart Circ. Physiol.* 2005; 289:H660-H666.
27. Talusan P, Bedri S, Yang S, Kattapuram T, Silva N, Roughley PJ, **Stone JR**. Analysis of intimal proteoglycans in atherosclerosis-prone and atherosclerosis-resistant human arteries by mass spectrometry. *Mol. Cell. Proteomics* 2005; 4:1350-1357.
28. Cury RC, Houser SL, Furie KL, **Stone JR**, Ogilvy CS, Sherwood JB, Muller JE, Brady TJ, Hinton DP. Vulnerable plaque detection by 3.0 tesla magnetic resonance imaging. *Invest. Radiol.* 2006; 41:112-115.
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30. Shaw AT, Meissner A, Dowdle JA, Crowley D, Magendantz M, Ouyang C, Parisi T, Rajagopal J, Blank LJ, Bronson RT, **Stone JR**, Tuveson DA, Jaenisch R, Jacks T. Sprouty-2 regulates oncogenic K-ras in lung development and tumorigenesis. *Genes Dev.* 2007; 21:694-707.
31. Bedri S, Cizek SM, Rastarhuyeva I, **Stone JR**. Regulation of protein kinase CK1 α LS by dephosphorylation in response to hydrogen peroxide. *Arch. Biochem. Biophys.* 2007; 466: 242-249.
32. Cizek SM, Bedri S, Talusan P, Silva N, Lee H, **Stone JR**. Risk factors for atherosclerosis and the development of pre-atherosclerotic intimal hyperplasia. *Cardiovasc. Pathol.* 2007; 16: 344-350.
33. Hinton-Yates DP, Cury RC, Wald LL, Wiggins G, Keil B, Seethmaraju R, Gangadharamurthy D, Ogilvy CS, Dai G, Houser SL, **Stone JR**, Furie KL. 3.0 tesla plaque imaging. *Top. Magn. Reson. Imag.* 2007; 18: 389-400.
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39. Collins AB, Smith RN, **Stone JR**. Classification of amyloid deposits in diagnostic cardiac specimens by immunofluorescence. *Cardiovasc. Pathol.* 2009; 18: 205-216.
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Narrative Report

My interests are in understanding the molecular mechanisms underlying cardiovascular diseases and to advance the fields of cardiovascular and autopsy pathology. One primary focus is vascular diseases, including atherosclerosis and vasculitis. A key general area of investigation is to understand the mechanisms leading to the formation of pre-atherosclerotic intimal hyperplasia. One project in the laboratory is focused on determining the mechanisms by which vascular cells sense and respond to low physiologic levels of hydrogen peroxide. Hydrogen peroxide is synthesized in the vessel wall at low levels, where it exerts mitogenic effects contributing to intimal hyperplasia, but the biochemical mechanisms by which this occurs are unknown. Using cultured human vascular cells and cultured human arteries we have identified the CK1 α LS / hnRNP-C pathway as a vertebrate specific nuclear signaling pathway activated by low endogenous levels of hydrogen peroxide. We have demonstrated that this pathway plays an important role in vascular cell activation and the formation of intimal hyperplasia.

A second project in the laboratory is to determine the mechanisms by which intimal hyperplasia progresses to atherosclerosis in humans. Intimal hyperplasia is believed to be a precursor lesion for atherosclerosis by enhancing the retention of lipid. However, some vascular segments almost never develop atherosclerosis despite forming intimal hyperplasia. Our approach has been to use proteomic and molecular techniques to define specific molecular aspects of intimal hyperplasia that facilitate atherogenesis. In this regard, using a proteomics screen we have identified the extracellular proteoglycan composition of human intimal hyperplasia in both atherosclerosis-prone arteries and atherosclerosis-resistant arteries, and we found the major difference between the two to be the upregulation of a cell-death promoting proteoglycan, lumican, in the atherosclerosis-prone artery. The molecular mechanisms of action of lumican in the vessel wall are being investigated. In addition we are seeking to recapitulate human atherosclerosis in cultured human arteries, and to identify the mechanisms by which this process occurs.

Another focus has been to further our understanding of vasculitis, particularly aortitis. For example we have recently identified a new form of aortitis, which is seen in the context of IgG4-related systemic disease (IgG4-related aortitis), for which a specific treatment is available. We have also discovered that patients with giant cell aortitis without systemic symptoms are at high risk for subsequent aortic events, in contrast to previously held assumptions.

An additional area of interest is to advance our understanding of myocardial diseases such as myocarditis, cardiomyopathies, cardiac amyloidosis, and cardiac allograft rejection. For example we have developed an immunofluorescence method to routinely and quickly subtype amyloid deposits in cardiac biopsy specimens, to allow for proper clinical management of these patients. In addition I direct the Cardiovascular Histology Core Facility at MGH, which provides cardiovascular histology core services to local research laboratories and also serves as the central core lab for a nation-wide NIH-funded multi-center study on human cardiac allograft rejection.

In addition to my research activities, I direct the cardiovascular pathology service at Massachusetts General Hospital, which handles ~1,800 cardiovascular surgical specimens each year, and I also direct the Autopsy Service which performs ~400 autopsies each year. I serve as a cardiovascular pathology consultant to the Office of the Chief Medical Examiner in Boston. I desire to advance the field of cardiovascular pathology in general and thus became the founding chair of the new Standards and Definitions Committee of the Society for Cardiovascular Pathology,

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an international committee aimed at improving the practice of cardiovascular pathology. The Committee's first consensus report was published in early 2012. I am actively engaged in teaching cardiovascular pathology to Harvard medical students, Massachusetts Institute of Technology graduate students, and Massachusetts General Hospital clinical residents and fellows. I also serve on the Education Committee for the Society for Cardiovascular Pathology. As Director of the Autopsy service, I oversee the weekly Autopsy Case Conference, which teaches trainees to correlate autopsy findings with clinical, radiologic, laboratory, and molecular studies.

Expert Report of James R. Stone, MD, PhD

Case: Sexton v. Phillips, RN, et al.

I am a cardiovascular pathologist at Harvard Medical School, and I direct the Cardiovascular Pathology Service and the Autopsy Service at Massachusetts General Hospital. My curriculum vitae is attached.

For the above case, I have reviewed the following material:

- Autopsy Report
- Histologic Slides From the Autopsy
- Portions of Cape May Regional Hospital Records
- Autopsy Photographs
- Expert Reports of Ian Hood, MD
- Expert Report of Wayne K. Ross, MD
- Expert Report of Stephen Factor, MD
- Expert Report of Theodore Chan, MD
- Expert Report of Robert Attaran, MD
- Expert Report of Michael Gaziano, MD

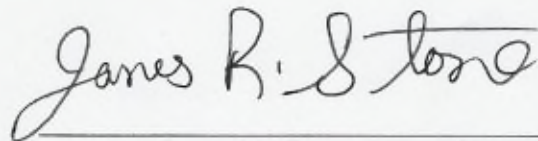
Brett Sexton was a 43 year-old man with a history of chronic ethanol abuse. He presented to Cape Regional Medical Center on 7/12/2013 with a history of abdominal pain, nausea and vomiting in the setting of chronic ethanol abuse. He was admitted and diagnosed with pancreatitis. On 7/15/2013 he became combative, and while being subdued by hospital staff, he suffered a cardiac arrest and died. The report of the autopsy performed by the Medical Examiner documents the presence of pathologic changes associated with ethanol abuse including: acute necrotizing pancreatitis, dilated cardiomyopathy, hepatic steatosis (fatty liver), and esophageal varices. There was minor trauma related to the combative episode and trauma related to the subsequent resuscitation efforts, but no significant life-threatening trauma.

Upon review of the autopsy slides and gross photographs, the heart was clearly abnormal. There was dilation of both the left and right ventricles. Histologically there was enlargement of the myocytes (hypertrophy) as well as interstitial and replacement fibrosis (scarring). There was also endocardial fibrous thickening, indicating that the left ventricular dilatation was chronic and associated with ventricular dysfunction. In a patient with chronic ethanol abuse, these findings are most likely due to alcohol-related cardiomyopathy. The slides of the liver showed severe steatosis and severe fibrosis with focal regenerative nodule formation, indicating early cirrhosis. The pancreas showed extensive severe acute necrotizing pancreatitis. There were numerous bacteria present, which were more numerous in the necrotic areas of the pancreas, most likely indicating the presence of infected pancreatic necrosis prior to death. There was also scarring in the pancreas, indicating chronic pancreatitis. The acute pancreatitis was associated with adjacent retroperitoneal fat necrosis and focal peritonitis.

The findings at autopsy demonstrate that Brett Sexton had significant cardiac pathology, which was the most likely cause for his unexpected cardiac arrest. His dilated heart, in and of itself would have put Brett Sexton at risk for sudden unexpected cardiac arrest. The scarring in his heart was caused by his long and ongoing history of ethanol abuse and placed him at high risk for sudden cardiac death. Thus it is my opinion that his death was caused by the injury to his heart from the chronic abuse of ethanol. Brett Sexton's death was caused by his cardiomyopathy, and the cardiac dysrhythmia occurred in the setting of multiple stressors including acute ethanol intoxication/withdrawal, severe acute necrotizing pancreatitis with infected pancreatic necrosis, and a combative episode.

It is my opinion that Brett Sexton did not die from positional asphyxia. There was no significant trauma identified at autopsy. There was focal soft tissue hemorrhage in the neck, which is neither indicative of significant neck trauma, nor would itself have caused asphyxia. In addition, documented events surrounding Brett Sexton's combative episode and subsequent cardiac arrest are not consistent with death from positional asphyxia. It is mostly likely Brett Sexton would have died anyway, even if he had not been subdued by hospital personnel during his combative episode. Furthermore, there is no evidence in the autopsy report or medical history to suggest that he suffered an abnormally prolonged death.

My opinions are based on my training, education, experience, and the material I have reviewed. All opinions expressed are held to a reasonable degree of medical certainty. I reserve the option to amend my opinions should additional information become available to me

A handwritten signature in cursive script that reads "James R. Stone". The signature is written in dark ink and is positioned above a horizontal line.

James R. Stone, MD, PhD

9/17/2017